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U. S. DEPARTMENT OF AGRICULTURE

USDA

FOR JANUARY 7, 1946

Outlook

ANY ATTEMPT to report the Twenty-third Annual Agricultural Outlook Conference (December 3–7) comprehensively is impossible in these small pages. But one can say that the general attitude was perhaps more hopeful and reassuring than might have been anticipated. Suggested farm production goals for 1946 call for some changes in pattern as compared with 1945, but involve quite as great a production effort. The American diet is practically bound to improve in 1946 though, of course, uneven income distribution and persisting ignorance about nutrition will probably prevent everyone from having a fully adequate three squares a day.

E. A. Goldenweiser, economic adviser to the Federal Reserve Board, made one of the most interesting talks, based on his 3 months' tour of Europe's central banks. He found the entire financial and credit structure of the Continent disintegrated. Most striking of all to an American was the reluctance of people to sell anything which would go out of the country and the disrepute in which money was held. Even in the small Irish village where the Clipper gave them three-quarters of an hour delay, passengers were warned not to buy anything. Export control was general.

One country after another was trying to get rid of the huge quantities of money with which the Nazis had loaded it down. Indeed, from a monetary standpoint, Europe appeared to have adopted a cigarette standard, though Dr. Goldenweiser wondered how anyone could ever smoke the cigarettes knowing what they would buy. Russia had a system whereby citizens could purchase bare basic subsistence necessities in controlled markets at reasonable prices. Any other purchases had to be made in government stores where all sorts of goods were available at 20 times controlled prices. This gave Russian money a remarkable "homing instinct" for, after the most transitory visit to citizens' pockets, it flew directly back to government!

Dr. F. L. Thomsen, head of marketing and transportation research for Bureau of Agricultural Economics, spoke entertainingly, amusingly, and informatively all in one. He looks forward to quite an era of frozen foods of all sorts, these perhaps eventually taking top place from canning in the processed food field. Most people agree that frozen vegetables are more palatable than fresh ones—after the hauling and mauling they get in marketing—and that they are as high in nutritive content. Frozen meat is also a coming thing, though considerable changes in meat marketing will be required as an antecedent. Frozen concentrated milk may enable the housewife effortlessly to lug a quart home in a little square box—why didn't the cow think of that?

Home freezers and freezer lockers are not likely to be as popular in the future when frozen foods become generally available in stores. Dr. Thomsen also envisioned a day of precooked blue plate specials and even more elaborate meals, available quite economically, which mamma can take home and heat up for a quarter of an hour in the electronic heater while browsing over the evening paper. Then "Come and get it!" Watch for accounts of some of the things about which Dr. Thomsen talked in Marketing and Transportation Situation. See the October Outlook Issue as a good example. (Available from BAE.)

Cotton Export Advisory Board: Secretary Anderson designated seven representatives from the American cotton industry to serve on this Board, November 21; W. L. Walker, chairman of the Postwar Planning Committee, American Cotton Shippers Association, Houston, Tex., is chairman. Ask Press Service for 2154–45.

Improved tires, USDA

THE SOUTHERN Regional Research Laboratory at New Orleans has developed new and better truck tires with improved cotton cords. In doing so, selected cotton varieties were used. Tests showed outstanding performance. In fact, the improved tires stood up better under rough driving than did those made from standard cotton. Similar passenger-car tires were still in good driving condition after 70,000 miles at high speed.

These are the results of a wartime research project undertaken to give the Army the best tires it was possible to produce from synthetic rubber. First it was discovered that tires made with low-gage cotton cord required less natural rubber in their construction, and also permitted fabrication of a desirable, cooler-running tire. The first tires were made of 90 percent synthetic, and 10 percent natural rubber. Under test on both trucks and passenger cars the Army found them outstanding.

Tires made with Stoneville variety cotton proved about 20 percent better than those in which standard cord was used. But those made with SXP cotton were 75- and from Wilds, 132-percent better. When cars bearing these tires were run on paved highways outside San Antonio at a speed of 60 miles per hour, they gave most satisfactory performance, and also stood recapping well.

T. B. campaign pays

ABOUT a quarter of a century ago a campaign was undertaken by Federal and State agencies to eradicate bovine tuberculosis. It has had great success. The Bureau of Animal Industry estimates that nearly 40,000 animals, or 16 million pounds of beef a year, which would otherwise have been condemned as unfit for human consumption, are saved as a result of this campaign.

During the last fiscal year about 14½ million cattle carcasses were federally inspected. Only 0.04 percent, exclusive of known reactors, were found to be tubercular, and only 1 in 10,000 was affected seriously. But when the campaign began condemnations were 30 times as frequent.

Meat-inspection and livestock-shipping records are of value in tracing tubercular cattle to their home premises and eradicating the infection. Although our cattle as a whole are now remarkably free from this disease, which

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troubles the livestock industry of many other countries, unsuspected centers of infection are frequently found. But the vast saving in beef has paid for the eradication campaign many times over, not to mention the far safer milk supply we secure as a dividend.

Public service in field

ANY FIELD AGENCY of the USDA becomes the Department in microcosm for the community it serves. No matter what its special line of activity, this is true. It must be ready to answer all kinds of questions fired at it via telephone, post office, and reception desk. Just to give you Washington folk an idea of what it means, here is a fair sampling of questions that came to us just recently:

Where can I obtain pine-tree seed? What is the best way to plant a tree in New Orleans? What is the best shade tree for my yard? Tell me all about how to plant pine trees on my land in the outskirts of the city? How can I kill an oak tree in the front yard? What is the best school of forestry? Should I have grafted to prevent my pecan tree from producing dry fruit this year? Yet we are a forestry research staff with a pretty specific and limited program. But we try always to supply sound clues if not direct answers, and we answer directly whenever we possibly can.

However, questions like these also beset us: When and where will DDT be available and how should it be used? Will DDT hurt my dog? How can I get rid of termites, ants, caterpillars, mosquitoes, tomato worms, corn borers—it's a wonder they didn't add book agents! How can I save my camellias and azaleas? Such questions are referred to one person who knows best what to send out or where to refer them. Again the public is served.

Then timid, bold, hopeful, worried-looking people constantly approach our information desk—an elderly couple wanting to know how to prevent termites from pulverizing their home; people with leaves bearing weird blight patterns, weed samples, caterpillars and divers bugs in jars, branches with wasp's nests on them. One man brought in an armful of ragweed to get its correct name, though it is as sneeze-producing by one name as by another.

Then G. I. Joe calls trying to locate a girl and redeem a promise to a buddy killed in Europe. (The cooperative U. S. Engineers office located her in Vicksburg, Miss.) Next comes an individual who wants to get a permit to transport a horse from Louisiana to Mississippi, and another who desires to know *all* about fruit orchards. Since our information and our functions as well are limited in this sector, a little ranting by Mr. Public is in order.

But practically everyone is grateful and pleasant. We enjoy our work and we think we please our public. We should even like to guide visitors through the old mansion in which we work, a definite sightseer's item, pointing out the swimming pool and the pink marble fireplace constructed for the Emperor Maximilian, but we just have to forego that and insist that this is a Government office building, looks notwithstanding.

Here Uncle Sam meets John Q. Public. Here our great Department becomes a single information desk attendant, a girl secretary with a southern drawl, a harried clerk, or a busy scientist. But we are conscious of our importance as Washington's representatives. We know the public tends to judge the Department and the Federal Government itself on the basis of *our* knowledge and *our* deportment. So we people of the field everywhere seek humbly to do our best.—EILEEN C. BARADELL, FS, New Orleans.

Here's to Buffalo Bill!

THE STORY goes back to King Sennacherib, a carving on the walls of whose palace shows a field of mature grain sorghum. Sorghum was quite slow in getting to us, however, being first introduced into this country within the memory of men still living. It has made rapid progress, though, and the annual production now covers more than 10 million acres. One of the newer phases has been the developing of sorghums with waxy seeds.

We have been breeding and testing such varieties for some years, but the work assumed major importance when the Japs took over the Netherlands Indies from which we had been getting some 97 percent of our tapioca. What to do? "Use waxy-seed sorghum," said the cerealists. We did, and discovered that it would fully replace tapioca. And then the miracle happened, though I suppose the cerealists consider it merely part of the day's work: From a seed supply of only 20 pounds from the 1941 crop, they started a pyramid that resulted in a commercial crop for processing in 1944 of 32 million pounds of grain!

The best of the new waxy-seed sorghums is the Cody, named for the late Col. Wm. F. Cody, who as Buffalo Bill, made quite a reputation for himself in the part of Kansas where, in cooperation with the Kansas Agricultural Experiment Station, the new variety was bred. The boys consider the Cody merely a horse-back type, however, and stand ready to produce automobile or airplane sorts if the demand warrants it.—JOHN A. FERRALL, PISAE.

Mail-order house

IN HIS first annual report as Secretary of Agriculture, Jeremiah Rusk told how nearly 40,000 letters of inquiry had come to the Department in the first 10 months of 1889. The letters still come, only now in an incredible flood. F. J. P. Cleary, an old-young fellow in line for citation as Federal employee longest in continuous service, yet fast on his feet, F. L. Zimmerman, and their indefatigable staff act Canutelike to sweep back this flood. The work is done in Inquiries and Distribution Service, Division of Publications, Office of Information.

Because the public remains on a 7-day week when it comes to asking questions of USDA, no 5-day week would enable this service to catch up with its work. For the annual average now stands at 839,990 letters, 12,468 personal applications for information, and 52,907,185 publications distributed. So Saturday work had to return for the Cleary-Zimmerman crew; and Saturday, November 3, found 31 employees there working 8 hours each, trying to cope with 20,000 back letters.

What had to be and was done? Determination had to be made whether or not publications requested in 1,392 letters were free or for sale, and each letter asked for from 1 to 10 bulletins. More than a thousand letters needed the attention of specialists and had to be referred to other offices. Some 8,000 labels had to be addressed; 8,000 letters were placed on the road to completion, and 5,000 more were readied for the typing crew. No wonder USDA has been called one of the largest mail-order establishments in the world.

Glorified peanut butter: Scientists at the Georgia Agricultural Experiment Station have found out how to make firmer, less sticky peanut butter which can be sweetened and flavored orange, chocolate, vanilla, chili, sweet pickle, etc., then formed into bricks and sealed in greaseproof wrappers.

Catalogue of rogues

MAN has ever had to be on guard to protect himself and his animals from parasites that by their very nature thrive at the expense of other living organisms. So he set to work to identify those that he caught red-handed, named them, and made a study of their life histories in order to devise means by which he could free himself of such pests.

Scientists in the Zoological Division of the Bureau of Animal Industry, working on these problems, discovered that the literature on parasites was both scattered and voluminous. They found that the creation of a catalogue listing and classifying the parasites was imperative as a basis for orderly research. In 1891, Dr. Albert Hassall, a BAI scientist, began such a catalogue, naming it the Index-Catalogue of Medical and Veterinary Zoology.

The catalogue lists ticks, lice, roundworms, tapeworms, flukes, protozoans, and many others—approximately 100,000 of them thus far—and the catalogue is still growing. It is used throughout the world by scientists and medical men in devising effective methods of protecting man and his domestic animals from the depredations of these vicious parasitic forms of life.—SALLY I. MILLER, ARA.

Plant doings

PALMER SMITH, USDA's Press Service Clip Sheet expert, who writes so well that he makes even vegetables seem human, has unscrewed the inscrutable names those sugarcane varieties have, such as Co, C.P., and P.O.J. Seems the Co canes originally came from Coimbatore, in India, and the P.O.J. varieties from Proefstation Oost Java, a Dutch experiment station. The USDA bred many new canes at Canal Point, Fla., whence the C.P. By now about eight of the C.P. canes are grown on about 71 percent of our domestic sugarcane acreage; Co 290 stands on another 28 percent, the P.O.J. canes have simply been surpassed by their C.P. relatives.

At this point we jump to tomatoes and jimsonweed, for USDA and Alabama Agricultural Experiment Station scientists exploded the happy idea of grafting the tomato on the roots of this weed to build up resistance against root-knot disease. Jimsonweed manufactures alkaloids and bad smells. Nematodes that produce root knot shy away from it. Yet it belongs to the potato family and the tomato can be grafted onto its roots. But the poisons formed in those roots invade the tomato fruits, so this is no way as yet to produce edible tomatoes. Even rabbits that stole tomatoes in the experimental plots got groggy and kept running into things. But hundreds of pest- and disease-resistant crops have been developed by plant breeders and, in time, some strain or relative of Jimsonweed may be found to provide the tomato with a nematode-proof root system without the tomatoes becoming toxic.

Remarkable

ONE of USDA's most remarkable employees is Francis J. P. Cleary, chief of the Office of Information's Inquiries and Distribution Service. It was 1892 when he went to work in the old red brick building, built during the term of the Department's first Commissioner, Isaac Newton. His entrance salary as a messenger was $25 a month, but he had received a raise to $40 by the time J. Sterling Morton became Secretary, a year or so later.

Cleary was assigned to escort Morton around the building in a survey to discover expenses that could be cut. Just to make talk he boasted of his promotion. Morton was the wrong man to hear that boast. Not only had he been ejected from the University of Michigan for his independent student thinking—but Morton entered the Department with a hatred for bureaucracy, a passion for economy, and an aversion to women employees—all of whom he cut back to $1,200 a year or less. Cleary woke up with $25 a month once more!

But that didn't down him. Not even Morton could subdue him. He went on to become clerk, copyist, editorial clerk, assistant in charge of the document section, superintendent of distribution, assistant administrative officer, senior administrative assistant—holding some 50 positions on his way up to his present assignment. Now he has had 53 years of service and is the youngest old man in the Department, bar none.

He took his degree in law at Georgetown in 1906. He practically cut his eyeteeth on the sandlot, is a good marksman, has shot his share of clay pigeons, and went in for amateur theatricals in his (chronological) youth (for he is still young). He is now enamoured of golf and is much in demand as master of ceremonies. His extemporaneous speeches waft many a good dinner down the famous alimentary canal.

Today Cleary walks at such a brisk pace that few youngsters even try to overtake him on the street. During the war he was active in civilian defense. He was senior warden in his community, building warden for the Department. He was elected employee member of the board reviewing efficiency ratings for 1944, after serving as alternate in 1943.

We just wanted to say a word in praise of him as he nears 70, and is about to embark on another good long stretch which is surely ahead of him. Possibly he is champion Federal employee in terms of continuous service; if not, he's the runner up.

Eat your vegetables!

A NUTRITION investigator recently discovered that patients in an Ohio hospital left an average of 10 ounces of food on their plates daily, per individual served. Foods most commonly discarded were cooked and dry cereals, vegetable salads, lettuce from all salads, cooked vegetables, salad dressings, soups, bread, and butter. Foods rarely discarded were fruit juices, fruits, fruit salads, meats, fish, poultry, eggs, desserts, milk, and milk drinks.

Another investigator (both studies may be found in the November 1945 Journal of the American Dietetic Association) discovered that peas had the strongest place in the gustatory affections of soldiers at mess. Then, in order, came corn, lettuce, raw cabbage as slaw, snap beans (are they really food?), creamed carrots (same), escalloped tomatoes, buttered cauliflower, buttered parsnips, and buttered cabbage. Efforts to popularize such vegetables as squash or eggplant proved fruitless. Many of the soldiers had never tasted the "rarer" vegetables like parsnips or cauliflower.

Possibly the vegetables were poorly cooked. They often are in restaurants. Not long since, however, we found an outside cafeteria where the food tasted almost as good as that in USDA cafeterias. We asked the portly manager how that happened. Minatory ripples made her corpulence quiver as she rather balefully replied: "You will find a home-cooked taste in food prepared in large quantities only where the cooks and supervisors are women. Men cannot do it, yet the fancy chefs are men and they get the biggest money."

If any of you want to pursue this investigation further we'll give you the address. For at that point we became intimidated and ignominiously ran.

Livestock branch, PMA

THE LIVESTOCK BRANCH of the Production and Marketing Administration incorporates the functions of the Livestock and Meats Branch of the former Office of Marketing Services, the Wool Section of the former Office of Basic Commodities, and the purchase and sales functions for meat and wool of the Office of Supply. The branch is responsible for inspection of all meats and meat food products prepared and processed under the Meat Inspection Act; for over-all livestock production and marketing programs, and the administration of purchases and sales of meat and wool by the Federal Government; for War Food Orders, market-news service, standardization, grading, and investigations for improvement in marketing practices and techniques relating to livestock, meat, and wool.

Reorganization has integrated livestock operations so that broad production and marketing programs may be inaugurated and carried out under the direction of a single agency. Field offices conducting work in inspection, grading, market news, and administration of regulatory laws continue to function under the direct administration of the branch. Thus, the branch works with all phases of the industry, from the time the livestock is produced on the farm until the products are marketed.

The branch administers three regulatory acts. Under the Packers and Stockyards Act, it supervises livestock marketing at about 200 public stockyards to protect farmers and producers against unfair or fraudulent practices and unreasonable rates for services rendered in connection with the sale of their livestock. The Meat Inspection Act provides for Federal supervision of the preparation of meat and meat-food products moving in interstate or foreign commerce and inspection of imported meats and meat products. The Insecticide Act prohibits the manufacture, sale, or transportation in interstate commerce of adulterated or misbranded insecticides and fungicides.

The work of the branch really began many years ago in the Bureau of Animal Industry, the Bureau of Chemistry, and the old Office of Markets and its successor organizations. Under Director H. E. Reed, who has had a long and successful record in livestock work, the branch takes an active part in developing livestock production along with marketing in accordance with goals set up. The branch recognizes that economy of production involves the whole field of marketing, including transportation, processing, and selling. Anything less comprehensive would fall short of its goal.—GRACE E. M. WAITE, PMA.

The how of the pop

POSSIBLY you have wondered how and why popcorn pops. USDA corn specialists have the answer. It pops by steam power. Best results occur when the kernels contain from 14 to 15 percent of moisture. This is true of even new high-yielding hybrids which expand 25 to 30 percent more in popping than the old model corn.

Most popcorn sold at retail is held in hermetically sealed cans at the proper moisture content for superior popping. If you want to keep any unpopped corn over, this can be done by sealing it in glass fruit jars with a rubber ring. If the corn seems too dry, put a few drops of water in the jar with it.

Or you can simply keep the shelled corn hanging in a cloth bag on a porch ceiling hook in fall, winter, and spring, and near the basement floor in summer. This works quite well in humid climates.

Man of earth

THIS STORY concerns a remarkable farmer we met the other day. The mark of earth was upon him and love of the soil shone in his eyes. He had surpassed his three score and ten by three more years, yet he was active, keen-minded, progressive. He was truly a man, standing over 6 feet, and one easily believed him when he said that in youth he had often felled opponents with a blow. His clothes were careless and battered, but the soil was his heritage and the very cows loved him so they would come out of the tall corn at his call.

His education encompassed 6 months in a one-room rural school—and 70 years of experience. But he had love of earth, and the shrewd, humane, versatile, many-sided intelligence which alone can produce a successful farmer.

Over half a century ago he bought a hundred acres of woods from his grandfather. It cost him a dollar an acre and paying the debt was the hardest job of financing in his life. Two or three years ago he sold second-growth timber on half that original hundred acres for $7,500 and, had he held it until now, he could have gotten twice that. Today he has more idle money than he knows what to do with, yet he had just turned another bit of woods into $5,000 worth of Government bonds, because he couldn't live forever and his people knew bonds better than timber.

All his 12 or 13 hundred acres were in woods when he bought it, and he spent a good part of his early years cutting, sawing, and selling tall timber. But this he did wisely, letting it grow elsewhere, and today he has only 600 acres in cultivation. Tobacco is his cash crop but distinctly not his only crop, for he invented diversified farming out of his own philosophy for himself.

One man's way

He pointed to an automobile and said: "The Government gave me that automobile free for nothing in the thirties, for I was already doing everything the farm experts thought I ought to be doing on this farm. I had diversified, I used fertilizer, I pastured and contoured to save soil, so the Triple-A payment was just a gift to me."

He not only had a dairy herd, he raised beef cattle and was slaughtering during my visit. He had sheep on the place, and chickens, too. He raised all the feed for his poultry and animals and as much of his family's food as possible, for he doesn't believe farmers should rush down to the store and buy anything they can produce for themselves. He pitied the one-cash-crop operators and saw the error of their ways. He had modern, expensive equipment, all paid for, but too little help.

He even had a road machine to scrape his roads and keep them in such condition that his truck loads, though bigger than his neighbors', didn't turn over as they do on rutted roads. He was intelligent and foresighted in every operation performed. He now has eight tenants decently housed.

Aside from this he is a leader in the community, active and appreciative of all Federal and State programs of farm aid, a Sunday-school superintendent, and an incessant crusader for better education. He has time for everything—for work, for community activity, for recreation, and for prayer. He has had 3 wives (lost 2 by death) and some 15 children, but is now kind of preparing for the end of the race. He is finishing the course, calmly content.

Rudolph Michael, Virginia extension editor, and E. G. Stokes, of Kenbridge, Lunenburg County, introduced this honorable gentleman.

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JAN 31 1946
U.S. DEPARTMENT OF AGRICULTURE

USDA

FOR JANUARY 21, 1946

Milwaukee report

RETURNED VETERANS should add strength to the Department, Director of Personnel Reid told USDA personnel officers and administrators at their second meeting, during the week of December 3, 1945, in Milwaukee.

Veterans will bring systematic, orderly habits acquired under military discipline back into Government service, Mr. Reid said. "Their knowledge has been enlarged through training and travel. They have exercised leadership among men. They have had to meet emergencies. Their experience and growth should be fully utilized."

He also stressed the Department's position of leadership in personnel matters and acknowledged the work of Dr. Stockberger and others who first gave it prestige. He observed that personnel administration had proceeded beyond the mere point of employing people and classifying jobs. It must now deal with well-planned supervisory programs, employee welfare activities, carefully developed training, standards and specifications for positions, pre-employment investigations, personnel utilization, and such other activities as strengthen administration and enhance employee work interest and productivity.

The meeting was called to secure from top administrators and operating personnel officers recommendations on the solution of current problems and needed personnel policies. Assistant Secretary Brannan was the principal speaker at the banquet. Various field administrators or their representatives expressed their views on personnel policies at the opening session.

Working committees considered: Reemployment, reduction in force, qualification standards, delegation of authority, health and safety, wage and salary administration, personnel information, efficiency ratings and work standards, training, and work-load analysis. Of the 117 recommendations submitted, 90 were approved by the Director of Personnel, 13 were approved with minor changes, 4 were held for further study, and 10 were disapproved.

USDA program planning

THE Bureau of Agricultural Economics has been reorganized in accordance with recommendations made by the Committee on Organization headed by Milton S. Eisenhower. Better fortified than ever in its functions as the Department's primary agency in the field of agricultural statistics and economic research, the bureau loses the function of program planning to the Secretary's Office. A Department-wide committee, with the Secretary as chairman, is established to give agency heads a direct voice in planning over-all agricultural programs and policies. Responsibility for fostering public-discussion groups is transferred to Extension Service.

BAE is now responsible not only for collecting and disseminating agricultural statistics and for economic research; it, as the authoritative source of economic information, is responsible for general supervision and coordination of statistical and economic research throughout the Department. All bureaus and agencies are directed to furnish BAE with whatever information and reports it may require. These steps are taken to eliminate duplication, improve statistical and research methods, and increase the accuracy and broaden the usefulness of our economic and statistical information.

Secretary's Memorandum 1139, December 12, 1945, which announced these changes, effective December 31, also outlined the duties of BAE's associate chief and four assistant chiefs. This memorandum established a Situation and Outlook Board—whose chairman is to be designated by the Chief of BAE—composed of specialists in BAE, and in other agencies when appropriate. The board is responsible for the technical review and approval of all economic situation and outlook reports prepared in BAE or by other USDA agencies. Consult this memorandum for details.

Secretary's Memorandum 1140, also issued December 12, established a Department Policy and Program Committee to consider over-all policies, review and evaluate plans and programs of USDA agencies, and make recommendations for adapting these to changing situations. The committee will undertake a comprehensive study and reappraisal of USDA activities, make recommendations as to proposed legislation, and generally coordinate programs.

The Secretary serves as chairman of this committee, the other members being the Under Secretary, Assistant Secretary; Administrators of Production and Marketing, of Agricultural Research, of Farm Security, and of Rural Electrification; Governor of Farm Credit Administration; Chiefs of Forest Service, of Soil Conservation Service, and of Bureau of Agricultural Economics; Directors of Extension Work, of PMA's Field Service Branch, of Office of Foreign Agricultural Relations, and of Office of Information; Solicitor and Budget Officer.

Readability

THE EDITORS of *USDA* have stewed in the sweet juices of egotistical pride ever since the readability experts of Extension Service reassured them by saying that the house organ is highly readable. Now our pride is at end. We have not reached the acme of perfection; in fact we seem to be a long, long streetcar ride therefrom.

Extension Editor Oley Oleson of Amherst, Mass., writes in to tell us about an item published by his State, intended for community groups, and entitled "Program Hints." Soon after it appeared a social worker in the Massachusetts Department of Mental Health wrote him thus regarding it: "We find a great deal of use for these in connection with our program of supervising the feebleminded in the community."

The crash you hear is us getting off our pedestal. Oleson claims perfection for his State, at least on one piece of material issued, because he now knows that just everybody, and he *does* mean everybody, can comprehend and profit by it. May we shudderingly tender our congratulations to the sovereign State of Massachusetts?

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Spring session

JANUARY 20 to February 2 mark the registration dates for the Graduate School spring semester, beginning Monday, February 4. Course offerings total 133, covering many fields of interest. Included for the first time are five new courses: Color Photography; Advanced Spanish Conversation and Literature; Advanced Accounting Problems; Sequential Analysis of Statistical Data (theory and application); American National Government. This last-mentioned course, suggested by the Secretary's Office, is designed especially to acquaint new employees with the set-up and workings of the Federal Government. Catalogs and spring announcements may be obtained in 1031 South Building.

GS, now in its twenty-fifth year of operation, justly claiming to be one of the most unique of educational institutions, serves Federal employees, especially those in the USDA. A correspondence study program has been given for some time and recently extensive requests have come from field offices for more emphasis on opportunities for field employees, as particularly illustrated at the Milwaukee meeting for personnel officers and administrators. A Seminar in Agricultural Policy, just organized at Berkeley, exemplifies one channel of service, and plans are now under way for other educational projects in regional field offices.

Photoperiod twins!

PHOTOPERIODISM is a new Stop, Look, and Listen! sign for agriculture. It was first described in 1920 by W. W. Garner and H. A. Allard, Bureau of Plant Industry, who, working at the old Arlington Farm with tobacco and soybean plants, demonstrated for the first time the influence that length of day has on plant development. Having thus discovered a fundamental law of nature not before recognized, they gave it the name photoperiodism.

Photoperiodism is now accepted as a determining factor in the successful culture of many crop plants. The retirement of Dr. W. W. Garner last July broke up this pioneer team, but apparently the investigators in this new field are going to maintain the reputation for effective team work established by the "founding fathers."

In the forefront of the workers on photoperiodism, for example, are Harry A. Borthwick and Marion W. Parker, Bureau of Plant Industry, Soils, and Agricultural Engineering, with headquarters at the Plant Industry Station, Beltsville, Md. Borthwick acquired his Ph. D. from Stanford, and came to the bureau May 15, 1936. Parker received his doctor's degree from the University of Maryland, and reported for work June 1, 1936. The men were immediately teamed in photoperiodism studies, and have made an impressive success of their cooperation.

Jestingly known among their associates at the station as the "photoperiod twins," they have supplied an inspiring example of how effective teamwork can be. Even in conversation they speak as one man—well, twins, anyway. Their Miscellaneous Publication 507, Day Length and Crop Yields, summarizes many of the agricultural applications that have already resulted from the photoperiodism studies, and gives a clear indication of the important part the discovery is destined to play in the future development of agriculture.—JOHN A. FERRALL, PISAE.

Gray cones in bare trees

NEW YORK CITY'S outstanding bucolic editor, who keeps city people informed about the country in the New York Times, had these nostalgic paragraphs under the above heading in the issue of January 2:

> Winter is a good time to see the paper makers' nests. Varying in length and diameter from a few inches to large cones two feet long, the silvery homes of the white-faced black hornets hang like etchings from the limbs of gray birches and wild cherries and make pictures against the gray sky.
>
> From the splintered surfaces of old boards, rails, and posts they tear off bits of wood, reduce the wood to pulp by mixing it with saliva and then plaster thin sheets on the outside of the cone-shaped home. The queen is the only member of the family that lives over winter. Each spring she builds a little home, lays eggs, and when the first members of the season's family arrive they begin to enlarge the nest and care for the successive broods. As the clan increases the paper from the inside is cut away and new layers are added to the outside. All summer long the housebuilding goes on; as the nest grows on the outside new layers or stories of comb are built on the inside.
>
> The home of the paper makers is one of the wonders of the insect world. From a small, few-combed cottage in spring it may grow to a large nest by August. All summer it is the scene of bustling activity. When the freezing weather of October brings black frosts to the land all the paper makers except the queen of the tribe have finished their cycle. The queen, in response to age-old instinct, crawls away to some protected spot to spend the winter. Now in the cold grayness of a cloudy, windy day the nests sway in the wind. Before spring most of them will have fallen to earth.

Fair food future

A ROSY FUTURE for the housewife is pictured by F. L. Thomsen, USDA marketing and transportation head. In the fast-approaching era of precooked frozen foods, he said, meal preparation for many a housewife "will involve only a pause during her reading of the evening newspaper. Clearing the table and washing the dishes eventually may consist merely of bundling all the left-overs and paper utensils in the paper tablecloth and dumping it in the garbage can."

More frozen foods, including meat, poultry, fish, ice cream, and milk and other dairy products, as well as the well-known fruits and vegetables, will be available. Fresh foods will be of higher quality because of more careful handling, prepackaging, and, in the case of some fresh fruits and vegetables, rapid air transportation from field to grocery. Prepackaging of fresh meat cuts is expected to precede expanded frozen-meat production. Canned fruit and vegetable production is likely to decline relative to the total output of processed fruits and vegetables.

Home freezing of foods probably will not be an important factor in the Nation's food production, because industry can do the job better and cheaper than the housewife—probably better than the local locker plant even, except in some rural areas. Use of home freezers by city people will be largely confined to storage of frozen foods purchased at the store.

Everything super

Many people foresee almost universal use of dry milk, but Dr. Thomsen anticipates that, while consumption of dry milk will increase considerably among housewives as well as institutions, such new products as frozen or unsterilized condensed milk will have a greater chance of becoming popular. Ice cream will doubtless step out of the luxury class finally and become a staple of the household storage freezer.

Some of these developments may bring somewhat higher food costs than now—air transportation, for instance, calls for a considerably higher ton-mile rate than rail transportation—but food quality will be higher. It has been demonstrated, Dr. Thomsen said, that a substantial number of people are willing to pay more for better quality. He added that, in his belief, marketing costs generally can be materially reduced "if farmers, consumers, and dealers wish to take the necessary steps."

A gradual shift of supermarkets and other stores to complete self service is also in the cards. To those who feel inclined to doubt the likelihood of more streamlined marketing, Dr. Thomsen points out how revolutionary a change has already been wrought since the day of the village general store. "We should not be surprised at anything," he says. "This is not a favorable period for the skeptic."

O! *the* Dickens?

USDA representatives in Fillmore County, Minn., are all pulling oars in the same boat—and they're getting somewhere. They started when they organized the Pickwick Club in 1942 in order to coordinate their programs for better farm living. Regular meetings are held. The first part is devoted to operations problems. Then one of the members or an invited specialist talks on some phase of the Department's activities. Finally, each meeting closes with what grandma called a "light collation." Wives are in on this. The result of the Pickwick Club's existence is increasingly effective cooperation among Department agencies.

The club was organized by two Soil Conservation Service employees, county extension agent, Farm Security Administration representative, and three vocational agricultural teachers. The Federal Land Bank representative and two more SCS men have since become members. Membership is voluntary, and new members are voted upon before they are invited to join. Yes, the club took its name from Dickens' Pickwick Papers.

Food and agriculture

THE BRITISH are debating whether they should retain their Ministry of Food during peace. In the war of 1914–18 a special ministry was established to regulate the supply and consumption of food and to foster its production. This ministry came to an end in 1921, but was hastily resuscitated in 1939. It served to distribute the food resources of the United Kingdom more equally than ever before, and its operations met with general approval. Should it become permanent?

Much of the success of wartime nutrition programs in Britain, as in the United States, was attributable to high employment and high wages. Unless they remain high in peace, it will be more than a Ministry of Food can do to effect equal distribution of rations as was done in wartime. However, food will not be abundant in Britain for some time, and this forms an argument for retention of the ministry. One British journal says: "It is difficult, indeed, to see how the ideals of the Hot Springs Conference can be realised in this country without a Ministry of Food; for the future production and consumption of food cannot be left to the 'laws' of old-fashioned economics." This is The Lancet, a medical journal, dated October 20 last.

The editorial quoted goes on to argue that the Government must guarantee British farmers a fair price for their products, if British agriculture is to be maintained at anything like its wartime level. Then, if guaranteed prices and subsidies are to be the rule, the Government must also act, as at war, to prevent inefficiency in farming and to foster high employment and high wages. "Buffer stocks" of certain foods also must be accumulated to smooth out fluctuations due to gluts and shortages. Fair dealing between one citizen and another must be secured by the state.

This material is presented just to show what the editors of a leading British medical journal think about food and agriculture.

Head man at FSA

DILLARD B. LASSETER, of Atlanta, Ga., is the new head of the Farm Security Administration. He was appointed by Secretary Anderson on December 10, 1945, to succeed Frank Hancock, of Oxford, N. C.

Satisfied that he had finished the job he set out to do, Mr. Hancock resigned November 15. Two years earlier there were rumors he had been appointed to supervise FSA's liquidation. Instead he developed a program calling for more extensive use of local county farmer committees in approving and reviewing FSA loans and the progress made by borrower families, expanded the FSA program of assistance to World War II veterans, and cooperated with the Veterans' Administration in certifying farm loans for guarantee under the Servicemen's Readjustment Act. Before becoming head of FSA, he had served 8 years in Congress, was a member of the Federal Home Loan Bank Board, a director of the Home Owners' Loan Corporation, and a trustee of the Federal Savings and Loan Insurance Corporation. A year after his appointment as FSA Administrator, he accepted the additional assignment as President of the Commodity Credit Corporation.

Mr. Lasseter, in taking over the administration of FSA, brings with him experience gained during many years in Government service. For the past several years he has been regional director of the War Manpower Commission in six Southern States, and prior to that was Deputy Administrator of the National Youth Administration. He has also served with the National Recovery Administration and in the diplomatic service. Noted in Washington for his administrative ability, Mr. Lasseter can legitimately claim a farm background. He was born in Vienna, Ga., 50 years ago, and attended high school at Cordele. Later he graduated from Emory University. He served as an officer in World War I, was wounded in action in France, and retired for disability. He passed the Georgia bar examination in 1935.

USDA career

ONE MAN who has found the USDA not a bad place in which to make a career is Arthur P. Chew, a special economic writer in the Office of Information. Born in England, he left for Canada when he was 17, and worked on farms and newspapers there—for example, on the Winnipeg Free Press, then edited by the famous John W. DaFoe. Subsequently he was on the staff of the Chicago City News Bureau, later going to Minneapolis, then to Des Moines, where he did business reporting and editorial writing for the Des Moines Register.

This brought Chew into contact with Henry C. Wallace, then Secretary of Agriculture in President Harding's Cabinet, who, in 1922, offered him a job in USDA. Chew accepted the offer, working on the Wall Street Journal until the USDA job materialized in 1923. Shortly before his death, Mr. Wallace asked Chew to gather material for the Secretary's Annual Report. He did so and has been working on these annual reports ever since.

Of course, Chew has had many other assignments. He has produced such memorable booklets as Science Serving Agriculture and The Government's Response to Agriculture, many bulletins on the structure and functions of USDA in the old days when these were printed, and innumerable newspaper and magazine articles. All of this material bears the imprint of his stylistic excellence and

the soundness and permanent value of his thinking.

His article on Our Embattled Farmers in the Atlantic Monthly, in 1926, presented a novel theory of the farm depression and excited wide comment. Another Atlantic piece, Save America First, published in 1938, concerned conservation and offered many new ideas. He has frequently contributed to the New Republic, to Barron's, to the Annalist, and to various farm journals. These were primarily "think pieces," the kind a writer spins out to please himself. If editors happen to like them, he is lucky.

In the Journal of Farm Economics for February 1944 he discussed what the successive Secretaries of Agriculture thought about the "embattled farmers," and, in the same Journal for August 1945, you will find his thoughtful exposition of Postwar Planning and the Rural Urban Balance. The USDA Yearbook for 1940, Farmers in a Changing World, contained two or three articles by Chew, one of which Peter Drucker said "broke new theoretical ground in easily readable and popular form." In between times Chew learned French!

If such a writer and thinker were an outsider, we should be inclined to accord him considerable esteem. Sometimes when he is just one of us, we are inclined to overlook these niceties. That is why your attention is called to him here, and will be called to others like him as opportunity affords.

Open doors and windows

BEHIND closed frontiers, rigidly sealed off from contact with the ideas and opinions of other nations, all of us suffer from mental undernourishment and starvation. Intellectual malnutrition can be as stunting to human life and character as the absence of calories and vitamins. . . .

Nations learned long ago that separatism is fatal to economic health, and the development of the modern world is toward economic integration. What is true of commerce and goods is equally true of ideas and knowledge. When nations are walled off from each other, isolated from news and opinion, and deprived of the experience, the literature, and the new patterns of thought that are shaping in other countries, something happens to their mental health. The influences that in normal times flow freely across boundary lines, the uninhibited stream of ideas coming from all corners of the world, are, in this modern society of ours, a corrective and stabilizing factor in the lives of men, bringing strength and fertility to soils that would otherwise become sterile and dry.

In their intellectual life as well as in their physical life, nations and groups are becoming part of a vast living body. They are cells in an organism in which lack of circulation or disease imperils not only the health of the other members but the health of the whole. This process of cellular conjugation, this fast-growing element of interdependence, is shaping the intellectual life of our new world.

It is for this reason that the intellectual unity of the race is based on firmer foundations than is commonly supposed. This is true not only in relation to the physical and medical sciences; it is equally true of the humanities and the social sciences. All nations alike drink from the same springs. They all share their wealth with the rest of the world. There is not a field of thought in which this cannot be illustrated. Bacon was an Englishman, Descartes was a Frenchman, Spinoza was Dutch, and Leibnitz was German; together they laid the basis of modern philosophy. Moreover, men like these, and their associates in other fields, build their work on each other. . . .

Thought cannot be confined behind boundary lines without loss of vitality and ultimate decay. No permanent walls can be built against ideas. . . .

The war has re-erected many of these old partitions and has sealed the doors and windows of the nations. The great constructive task immediately ahead of us is to level these unnatural barriers against ideas and knowledge and experience—to open the doors and windows of the world and "let the winds of freedom blow."

(Taken from The Rockefeller Foundation—A Review for 1944, by Raymond B. Fosdick, President; pp. 12–14.)

Brief but important

For the record: Every now and then the Journal Variety publishes a review of a play which really died almost before it was born. It appends to these reviews the words, "For the record." In the same spirit, and merely to complete the record, may we say that Secretary's Memorandum 1118, Supplement 3, November 16, 1945, abolished the Office of Price in the Production and Marketing Administration and established an Office of Program Policy Coordination, *but* Memorandum 1118, Supplement 5, December 5, completely rescinded this action.

Current-model farmer: "The United States farmer has changed economically, technologically, and financially. Today's farmer is one of the most power-minded enterprisers on earth. He has about 2 million tractors and would like a lot more. His production per worker is *twice* what it was in 1910, at least one-third more than it was in the years just before World War II. Farming has become a 90-billion-dollar industry, with a cash income from sale of products, not counting food consumed at home, now at the *20-billion-dollar mark.* That compares with less than 5 billion dollars of cash income for farmers in 1932. The farmer is using his dollars wisely. He has pared his mortgage debt to a record low of 5½ billion dollars, less than half of what it was at the peak in 1923. Farm families have laid by a nest egg of 11½ billion dollars in bank deposits and have nearly 4 billion dollars in U. S. Bonds." (Secretary Anderson, New York City, December 6.)

Office of Audit: The staff office of the Production and Marketing Administration was established by Secretary's Memorandum 1118, Supplement 6, December 17, 1945, to be headed by D. J. Harrill and to be responsible for the formulation of PMA audit policies and the direction of its audit and examining activities. At the same time all budgetary, administrative management, organization, personnel, and administrative services and related functions of PMA, Federal Crop Insurance Corporation, and Commodity Credit Corporation were centralized in PMA's Budget and Management Branch.

Dr. Alva H. Benton: The acting head of the Division of Program Study and Discussion, Bureau of Agricultural Economics, died November 23, 1945, in Chicago, at the age of 59. Dr. Benton came to USDA in 1933, after years of teaching agricultural economics at the University of Minnesota, University of Manitoba (Canada), and North Dakota Agricultural College. From 1933 to 1939 he was active in the Western Division of the Agricultural Adjustment Administration. He had served in BAE since 1939. He was the author of Introduction to the Marketing of Farm Products and a number of agricultural bulletins and discussion guides.

Secretary's Memorandum 1137: Carries out the provisions of Executive Orders 9568 and 9604, which call for the release of scientific and technical data withheld from publication for reasons of military security, and which the Army and Navy feel can now be released. A good deal of research done by our Department and other Federal agencies during the war for military purposes will be of value to American industry in peacetime production. Executive Order 9604 provides for the release of information concerning scientific, industrial, and technological processes, inventions, improvements, etc., discovered in enemy countries. The USDA Librarian will act for the Department in obtaining permission to release data. Some material will probably be published by the Department. Other information will be kept in the Library and photostat or microfilm copies will be available to the public at cost of reproduction.

REA loans: Increasingly insistent demand by rural people for electric service was indicated by Rural Electrification's December announcement that borrowers in 21 States would have obtained the full amount available to them by January 1, 1946. This covers the 200 million dollars REA was authorized to lend during the fiscal year ending June 30, 1946. More than 127 million had been loaned by December 13, 1945, and there were applications on hand for 117 million *more* than the balance still available!

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USDA on the air

TIMELY information from the Department of Agriculture is carried on three Nation-wide network programs every Saturday. Consumer Time is heard on stations of the National Broadcasting Co. at 12:15 e. s. t.; The American Farmer program, replacing Your Home and Garden as of January 5, is heard on stations of the American Broadcasting Co. at 12:30 e. s. t.; and the National Farm and Home Hour is presented on stations of the National Broadcasting Co. at 1 e. s. t.

Consumer Time is a dramatized program, written by Christine Kempton, with professional performers. The American Farmer includes a brief weekly summary of the agricultural economic situation. The American Broadcasting Co. plans to present additional features of interest and assistance to rural listeners, with special programs from land-grant colleges, USDA research agencies, agricultural fairs, and shows.

The National Farm and Home Hour includes a 2-minute summary of the week's markets, prepared by the Production and Marketing Administration, and a news summary of developments in the Department of Agriculture of interest to producers and consumers. Keep tuned to USDA doings whenever you can!—JOHN BAKER, Inf.

Mist blower

S. F. POTTS of the Bureau of Entomology and Plant Quarantine has long been seeking to perfect a mist blower for spreading insecticides, working with the Connecticut Agricultural Experiment Station. Now such a blower has been devised. It disperses insecticidal mixtures as fine atomized mists which cover large surfaces with exceedingly small volumes of liquid. Mixtures more than a hundred times stronger than those formerly used can now be applied.

In actual experiments as little as 1 to 6 gallons of concentrated DDT spray per acre, applied by this method, successfully controlled gypsy moths, cankerworms, elm leaf beetles, tent caterpillars, fall webworms, and Japanese beetles on forest and shade trees. It did the same for potato flea beetles and leafhoppers, and for flies and mosquitoes on city properties. Three practical types of atomizing nozzles have been developed.

The equipment permits simultaneous application of dust and liquid. The dust is delivered through an air blast as usual; the liquid enters the air blast from the atomizing nozzle. The moistened dust adheres better than when dry. It seems almost incredible, but 1 pint of concentrated DDT spray applied by this method appears to do the work of 30 to 40 gallons of the dilute spray ordinarily used hitherto.

Strange conference

One of the most important conferences of the postwar preparation for recovery period was conducted recently at N. C. State College, a gathering of home and farm demonstration agents of North Carolina. They met without any oratory, band music, or world-saving promises. They were discussing improved farm practices and rural home developments.

In the midst of industrial and labor strife, while all over the world people were fighting or quarreling before the war itself had hardly ended, they were striving to help, not hinder. They had apparently no thought about themselves but concentrated on practical, scientific measures for betterment of other people.

They weren't asking more money for themselves or making threats to strike against the public. This is quite in contrast to most conferences these days. This is actually strange. The object of the week-long conference was to help others. The quiet, unassuming persons with no axes to grind went quietly about their work with no thought of selfish advancement. What manner of people are these? Don't they know that this is a grab all, "gimme" period in our history? The very idea of meeting to improve the common good.

We would all be better off if there were more of these in every phase of the State's and the Nation's life.—*Charlotte (N. C.) Observer, November 5.*

Christmas greens

NOW that Christmas is put away in mothballs until next year, you might like a little information regarding Christmas greens which should be of value next time. Clip it and remember it.

To ship well, Christmas greens should be fresh but dry on the surface before packing. Commercial shippers no longer sprinkle greens before packing. Moisture and warmth in the package result in discolored leaves. So the greens are usually dried off with a specially controlled air blast to remove surface moisture.

Naturally greens should be shipped fresh—as soon after harvesting as possible—and marked "perishable." They should not be packed or shipped with fruit which emits a gas that causes leaves and holly and mistletoe berries to drop. Try to remember that a year from now.

Then you might like to know that holly originally grew in the American woods from Massachusetts west to Missouri and south to Florida and Texas. Now it is found mostly in Maryland and southward, in the southern Mississippi River Valley, and reaches great size and abundance in the bottomlands of Arkansas, Louisiana, and eastern Texas.

While European holly is cultivated in the Northwest coastal area, especially around Puget Sound, the tree is not native there. But this climate is ideal for English holly, which has smaller, glossier leaves than American holly and berries which grow bunched instead of singly.

Maryland has a State-supervised holly conservation and marketing business averaging half a million a year. But red berries were rare on Maryland, Delaware, and Virginia holly in 1945 because of a combination of frosts and heavy rains. This struck a considerable blow to the income of many rural people who earn holiday money harvesting holly and making wreaths.

These facts were gleaned (cribbed might be more realistic) from that fine little mimeographed item, Food and Home Notes, for which Helen C. Douglass, Office of Information's Press Service, is responsible, and on which she does a useful and an admirable job.

Jaw defects

WHILE the jaw defects of human beings have occasionaly proved exasperating to us, and to others, we have devoted relatively little time to introspective reflection on the fact that some sheep have jaws of unequal length, and what that might portend. The condition is hereditary and the Department now advises sheepmen to cull their flocks of such animals.

Four Department of Agriculture scientists—Nordby, Terrill, Hazel, and Stoehr—working with range Rambouillet sheep at the Western Sheep Breeding Laboratory and the U. S. Sheep Experiment Station, Dubois, Idaho, have observed that the abnormality occurs frequently, and becomes pronounced as the animals mature. Twenty-four out of 1,500 ewes examined had overshot jaws. Whether this leaves them chinless and Gumplike the scientists do not say.

But, as lambs, they weigh about 7½ pounds less at weaning time than normal. Their wool is slightly shorter, and it seems probable that they do not eat as well as animals with well-matched jaws. The condition is most common

among lambs born of closely related parents both of which had jaw defects. The mode of inheritance is complex, but the results indicate that no sheep having defective jaws should be used as breeders.

Wells of FCA

JAMES E. WELLS, Jr., for 3 years a Deputy Governor of the Farm Credit Administration in Kansas City, quickly got his teeth into his new job as head of FCA's Washington liaison office, succeeding Dr. Warburton. Mr. Wells is known to business associates as Jim, but is "Earl" to most of his close personal friends, including his wife.

Mr. Wells first came to the Government and USDA in 1927 with the old Division of Cooperative Marketing, transferring along with this division to the Federal Farm Board, and later to FCA. He held the positions of deputy cooperative bank commissioner, director and secretary-treasurer of CCC, and vice president and general manager of the Central Bank for Cooperatives before he became deputy governor of FCA in 1942. He has been actively interested in the success of credit cooperatives as well as marketing, purchasing, and business service cooperatives.

Mr. Wells also has a real job outside office hours—renovating his home. He and his wife and daughter spend evenings and week ends being interior decorators, painters, and even doing concrete work. That's his excuse for not looking up more of his Washington friends.

Norfolk, Va.

NORFOLK is a bustling community, slightly thinned out since the war ended. Through the courtesy of G. Gay, who heads plant quarantine inspection there, we recently had a personally conducted tour of local USDA people. We called on H. H. Henderson, of Production and Marketing Administration's Fruit and Vegetable Branch, and on John Toxey, temporarily in charge of meat inspection work for PMA's Livestock Branch.

Then we visited the Virginia Truck Experiment Station, about 10 miles out, where Associate Director M. M. Parker told us about the projects there. The station was started about 35 years ago at the behest of local growers who wanted to improve their truck crops and who donated the land occupied by the place. It has a staff of eight or nine specialists making a well-rounded attack on problems that arise. Breeding, variety tests, fertilization, and insect and disease control are involved.

A disease-resistant spinach was developed which saved the local crop entirely. A kale has also been developed which resists low temperatures, is unusually high in vitamin content, and tastes like food—so the station said. Collards, carrots, celery, potatoes, and onions have been tailored to local needs. Increment by increment progress is made, and by seed distribution the new varieties are quickly built up. Fine truck cropping results in half a dozen counties nearby. Incidentally, carrots (which lose their tops) and kale (which does not grow) can over-winter in the ground there in what is essentially cold storage, always available for harvest and sale.

Subsequently we visited with County Agent L. B. Wilkins and Home Demonstration Agent Mary C. Walker. Mechanized farming advances rapidly hereabouts and prisoners of war now offer almost the only labor available. We also learned that the 4–H Club members look upon their counties as sort of run down, due to the war emergency, and show youthful fervor in amending this sad condition. Wilkins and Walker seem an unusually good team, even for Extension, which has plenty of good ones.

Prevent accidents!

ACCIDENTS are something we can do without. There are too many of them among Federal Government employees. In a message to the annual meeting of the Federal Interdepartmental Safety Council, dated November 20, the President cited the fact that many private employers protect employee safety better, and have lower accident frequency rates than the Federal Government.

During 1944 a total of 81,000 Federal employees sustained disabling accidents on the job, 717 of which proved fatal. The cost in claims and medical care amounted to 13½ million dollars. There was still greater loss in the form of human suffering and lowered efficiency. Work was interrupted, material spoiled, equipment damaged, and the time of other employees lost, *putting the Government a total of 67½ million dollars out of pocket for occupational injuries in one year.*

The majority of these accidents could have been prevented. Whereas we averaged nearly 11 injuries per million man-hours worked in the Federal Government, Westinghouse Electric's rate was only 6, General Motors and U. S. Steel averaged about 4, the Bell Telephone System, only 3.3; and the du Pont Co., as low as 1.4 injuries. However, the Rock Island Arsenal in the Government reduced its frequency rate from 17.6 to less than 3.6; Mare Island Navy Yard went from 14.5 down to 7.7, and *the USDA cut its rate from 18 to 8.*

Improvement is under way. But more can be done. The President made specific suggestions as to how greater improvement could be accomplished. Meanwhile, if you see an accident going some place to happen, stop it. We can do without most of the accidents which occur. Let's reduce USDA's frequency rate to the barest possible minimum.

Research center

IT TOOK this scribe some time to get out to Beltsville's Agricultural Research Center and Plant Industry Station again. But when he did go, John Ferrall, *USDA* reporter for the Bureau of Plant Industry, Soils, and Agricultural Engineering, placed him in tow of Clarence A. Reed with the cryptic remark, "He'll talk nuts to you." In a sense Mr. Reed did just that, for he's an oldtimer with the chestnuts, walnuts, pecans, English walnuts, filberts, butternuts, and others.

He showed us numerous grafted chestnut trees which are today giving us quantities of Chinese (blight-resistant) chestnuts to replace the smaller American variety we knew in childhood. We learned that pecans, filberts, and even English walnuts (somewhat reluctantly and after many losses) would grow at Beltsville, and that breeding experiments in this field are quite as important as in many others in which the USDA performs research.

Later we discovered the Bureau of Human Nutrition and Home Economics testing household equipment, especially the new and ever more popular quick freezers. Elaborate machinery exists to determine costs of operation, temperatures at many parts of the freezer, and other factors. Results enable manufacturers to increase the efficiency and economy of their product and consumers thus benefit indirectly. At the same time these results are made available directly to consumers to help them effectively use freezers they purchase. We evi-

dently look forward to an era of frozen food of all kinds—even frozen pies all ready for us to bake, and frozen steaks sold under brand labels.

Then there are laboratory rooms in which sample kitchens of almost any kind with almost any imaginable arrangement of stoves, sinks, and other equipment can be set up and tested for efficiency. Experiments with other rooms in the house will come later, and will have wide urban and rural application.

Finally, we met two outstanding scientists—Mrs. Bess V. Morrison, of HNHE, who will have interesting things on fabrics which we hope to report later in *USDA*, and Benjamin Y. Morrison, Chief of the Division of Plant Exploration and Introduction, PISAE, who has already been written up in these pages. He unfortunately was in a hurry. We hope to have an interesting talk with him at some later date.

Address by Mr. Brannan

ASSISTANT SECRETARY BRANNAN'S entire talk before the National Reclamation Association, at Denver November 15, repays reading. He addressed himself to the subject of USDA's part in the regional development of our land and water resources. The following material is quoted therefrom:

Let us consider the method by which the Department of Agriculture will carry out its share of resource development efforts. The work of the Department is conducted through its component Bureaus on a functional basis, the major functions being research, planning, dissemination of information, technical advice to farmers, agricultural credit, production and marketing stabilization work, and physical installations in connection with conservation work. These functions deal with all the problems of the individual farmer, groups of farmers, and the agricultural community. They relate to the development of natural resources, their conservation and use, and the operation and management of the farm business. In carrying out these functions, the Department works through long-established relationships with other Federal agencies, States, farm groups, and farmer committees. In this way Departmental services flow to the farms of the Nation and advice as to farm needs and administration flow back to the Department. Obviously, our Department is well equipped to handle the agricultural part of any regional program that may be adopted in a thoroughly democratic manner because in an important degree that is exactly what we are doing and have been doing for a long time . . . We have the organization, the method, the know-how, and the working relationship with the States and with farm people necessary to handle any job that is likely to arise. This capacity for service is the result of long years of experience in the field. It cannot be easily duplicated . . ." [Ask Press Service (phone 6114) for 2069–45.]

Living monuments to Nick

AT LEAST a billion growing trees are monuments to the work of Edward E. Carter, chief for the past 25 years of the Forest Service's Division of Timber Management, who retired from active duty November 30.

And those trees are not the only monuments. Under Carter's guidance and direction, the cut of National Forest timber was doubled over the pre-war figure as a major contribution to the war effort. Also the Alaska spruce log project produced 38 million feet of high-grade spruce logs, badly needed for wartime airplane building, and rafted them 900 miles down the coast to Puget Sound mills.

FS started its national forest timber sales work some 40 years ago with little more than a theoretical background of silviculture to go on. "Nick" Carter, as his friends call him, had a leading part in the development of working timber sales policies and techniques. That millions of dollars worth of timber has been sold over the years without criticism of business practices or principles is another tribute to his sound administrative work.

Nick fostered the growth of FS's reforestation program and long headed the division which has directed the successful planting of more than 1,200,000 national forest acres—more than a billion trees. He planted ideals as well as trees. Literally hundreds of young foresters have been influenced by his philosophy and example of technical competence, integrity, and public service. Perhaps this is the finest monument of all to Nick Carter.

Nick entered FS in 1905, the same year it was established in its present form. Born in Bath, Maine, in 1880, he was graduated from Bowdoin College in 1902, and received his master's degree in forestry from Yale in 1904. In 1910 he left Government service to accept the post of assistant professor of forestry at Harvard, returning to FS in 1915. He was temporarily in charge of national forest timber management work during World War I, and has headed that work since 1920. Since 1922 he has been a member of the United States Board of Geographic Names, which gives decisions on the names of mountains, rivers, and other geographical features used on official Government maps. He expects to continue in this capacity after retirement.

Brief but important

Visitors: Eleanor W. Clay tells us John Gunther, famous author, recently stopped at the Publications Desk in the Patio to look over and select some of the publications of the Department. Other recent visitors include William A. Shaw from Liberia, Africa, who expects to use information from the publications in landscaping grounds for the 1946–48 Liberian Centennial; Philip H. Wilkie, son of the late Wendell Wilkie; Morgan Beatty, radio commentator; Ellsworth Lewis, missionary from the Belgian Congo; and Col. L. B. Von Spach, UNRRA, Greece. Colonel Von Spach tells us that his office is getting a lot of help from the USDA and that the Greeks more than appreciate it.

Highly recommended reading: Better Health for Rural America, Plans of Action for Farm Communities, M. P. 573, prepared by a work group under the direction of Dr. F. D. Mott, United States Public Health Service, and national activity leader in Rural Health and Sanitation, USDA Interbureau Committee. Main subject heads: The Facts About Rural Health and Medical Care; Why Are Rural Health Services So Poor? What Has Been Done About These Rural Health Problems? What Has To Be Done Now? Health Security for Farmers—A Job For Many Hands.

Organized science: The address entitled "Organization and Support of Science in the United States," by Prof. L. C. Dunn of Columbia, in Science for November 30, merits close attention by USDA workers. Department and State experiment station research is singled out as a commendable example of the fact that public support of science is not per se objectionable. The introduction of crossbred or hybrid corn, as a result of such cooperative research, is used to typify the value even to private industries of such discoveries when protected only by public patents.

Continued: The War Advertising Council, Inc., has struck "War" from its name, but will continue to support special Government programs like forest fire fighting, farm-woodlot management, farm safety, and so on. The Federal Nutrition Planning Committee continues to meet monthly, and the National Nutrition Program wil carry on peacetime programs in food and nutrition education. The National Advisory Garden Committee has made a report of its wartime accomplishments to the Secretary of Agriculture in which it urged that a peacetime program of home gardening and home food production be continued with aid from USDA, the land-grant colleges, agricultural extension, and appropriate State agencies.

Surplus property and reconversion: Secretary's Memorandum No. 1135, November 29, abolished the Office of Surplus Property and Reconversion and transferred personnel to the Secretary's Office. Production and Marketing Administration will carry on USDA functions and duties relating to food and agricultural commodities under the Surplus Property Act (except when the USDA acts as owning agency), the Contract Settlement Act, and the War Mobilization and Reconversion Act (all of 1944). Remaining functions and duties, as outlined in War Food Administrator's Memorandum No. 27, Revision 1, and Secretary's Memorandum No. 1102, were placed under direction of the Assistant Secretary.

Foresters to Japan: At the request of the War Department, three Forest Service men have been detailed to go to Japan for the next 6 months. They are Morris A. Huberman of FS's Washington office, William S. Swingler of the Philadelphia office, and Robert J. Seidl of the Forest Products Laboratory. They will work with Maj. Arthur R. Spillers and Navy Lt Eugene Zumwalt, making surveys and advising the Supreme Commander on policies and activities in Japan and Korea concerning forest resources, pulpwood, wood fiber, wood chemicals, paper, lumber, poles, piling, cross ties, and wood fuel. Major Spillers is a former member of FS.

Goals: Recommended national farm production goals for 1946 announced November 30, call for 356 million acres. This is less than the 1945 *goals* but $5\frac{1}{2}$ million acres more than was actually *planted* to 1945 crops. Largest percentage increase in the recommended goals was 31 over 1945 for sugar beets, along with an 8-percent boost for continental sugarcane acreage. In general high output of commodities for which the wartime demand carries over into peace, shifts towards peacetime levels for other commodities, and a better balance between soil-depleting and soil-conserving crops constitutes the objective.

Better Farm Living: Under this title the New York Times editorially endorsed (December 1) assistant director of Extension Bevan's statement that farmers must make rural life more attractive if they hope to keep their sons and hired helpers. We read "the long hours and drudging work, with low pay and lack of recreational facilities in many small communities have long been a drawback to farming as a life work." Rural Electrification Administration and private utilities are commended for planning widely expanded rural power lines. Better roads, more power machinery, improved schools and recreation facilities, and a "new concept of rural sociology" were all recommended.

USDA as a business concern: A short while ago Secretary Anderson reminded his fellow Rotarians in New York City of accrued profits under USDA's price-support program, and of his responsibilities to 140 million stockholders, and a board of directors consisting of the Members of Congress. He said that, while the USDA was not supposed to make money, but rather to lose it by reason of price-support programs and subsidies, "the Commodity Credit Corporation during its entire lifetime has shown a net profit on its price-support operations. Up to last June, for example, it showed a profit of $35,000,000, which would be nice in any business." This figure of course, does not take current inventories into account. "Business men say 'I'm not in business for my health'; but we in the Department of Agriculture are in business for the economic health of our Nation." (Quotations from New York Times of December 7.)

The way of an investigator: Every scientific investigator and every USDA worker interested in how research is carried on should read the book by this title which delineates "A Scientist's Experience in Medical Research." It is by the late Walter B. Cannon, so long Harvard's George Higginson Professor of Physiology, and came from the press of W. W. Norton, a brilliant publisher whose sudden and untimely death recently shocked the book world. Here for once a really great scientific investigator explains how he did what he did in language that is readable, entertaining, and illuminating. The Library has this book.

Work improvement continues: The Secretary's Office is gratified at the way in which employees have responded to the appeal of the Secretary and the President to save manpower, money, and materials by improving work methods and procedures. Tangible evidence of the response to their appeals is nearly 1,200 reports of actual improvements since the program started about 15 months ago. (*See USDA* July 10 and October 30, 1944, and January 22, 1945, for articles on this program.) Improvements reported range all the way from minor changes in procedure to major organization changes effected in remote field offices as well as in Washington. Many are improvements of a scientific nature, and hundreds are on office methods. Improvements made in management and operations which may apply generally to many bureaus are reported in the publication, Case Reports of Work Improvements. Two issues have been distributed recently to the bureaus and more will be available soon.

Extension director to prexy: Dr. John R. Hutcheson, who was for a quarter of a century director of the Virginia Agricultural Extension Service, was elected president of VPI August 14, from which he graduated in 1907. Incidentally his wife is a sister of the wife of Dr. Edwin Broun Fred, also VPI 1907 class, who became president of the University of Wisconsin January 25, 1945.

Wisconsin plans FM broadcasting: Wisconsin, which claims the distinction of operating the oldest broadcasting station in the United States, is making its bid to pioneer in frequency modulated broadcasting. The State legislature has authorized funds for a system of FM stations to be operated in conjunction with the State-owned station, WHA operated by the University of Wisconsin. Seven stations are contemplated ultimately, and applications are on file with the Federal Communications Commission for the first two.

Duncan Wall: This well known agricultural writer and information man who left the Office of Information, where he was assistant director (and received a portable typewriter in so doing!) to go with Farm Reports, Inc., will probably be information chief for the Office of Foreign Agricultural Relations, before you see this. (This agency does not, as some citizen who recently wrote in supposed, attend the needs of poor relatives of American farmers in foreign lands.) Wall replaces Dr. Louis C. Nolan who leaves to become assistant agricultural attaché in Havana.

The Land: The spring 1945, issue of this stimulating and beautifully written periodical just staggered in from the Library, a hopeless laggard. Of course it should exchange with *USDA* and get to our attention sooner, but, in any case, let us recommend Russell Lord's presentation of that famous agricultural figure born in 1858 and still going strong, Liberty Hyde Bailey of Cornell, and Arthur P. Chew's (Information) article, "Veblen Called the Turn." Naturally the issue contains a great deal more that should not be missed, but these struck us as special, along with Dan A. Wallace's tribute to his famous old "Uncle Henry."

Mum man retires: J. Wise Byrnes, USDA floriculturist, and known to thousands for the chrysanthemum and amaryllis shows he long arranged in Washington, has retired after 44 years' service. He began work in the Bureau of Plant Industry in 1906, as a gardener. His father worked for the Department before him and originated the "mum" shows. Byrnes is a native Washingtonian and will continue to make his home in this city. He has been an associate horticulturist at Plant Industry Station, Beltsville, in recent years.

Movies: "Motion Pictures of the U. S. Department of Agriculture" is the title of MP 574, which appeared recently. It tells all about the informational and instructional movies issued by Motion Picture Service, Office of Information. It covers slidefilms, methods of handling film, how movies are distributed, and where and how to procure them; it lists State institutions which lend USDA films, and contains a descriptive catalogue of motion pictures and related slidefilms now available, arranged alphabetically by subjects.

Cheese: Bureau of Dairy Industry scientists have developed a nonrelapsing method of curing cheese twice as fast. Cheese held in the curing room at 60° F. was found to ripen as fully in 3 to 4 months as that held 6 to 8 months at 50° or lower, *provided it had been made of good-quality pasteurized milk.* This cheese also developed more and better flavor than that cured more slowly at lower temperatures, exploding fallacies to the effect that cheese made from pasteurized milk cannot be ripened quickly and lacks the characteristic Cheddar flavor. The discovery will advance the date when properly aged cheese reappears on the market.

Publications for foreign parts: This Department normally sends out many technical and some popular publications to foreign countries, an exchange service which brings back to our Library many foreign publications by way of return. War stopped this exchange. But the publications that would otherwise have been shipped were held in 300 boxes which now contain 300,000 copies of them. Many foreign institutions have similarly saved their publications for shipment to us. This document-exchange plan will soon be working in high gear again.

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U.S. DEPARTMENT OF AGRICULTURE
FEB 4 1946

USDA

FOR FEBRUARY 4, 1946

Cotton

IN HIS annual report for 1844, dated January 28, 1845, Commissioner of Patents Henry L. Ellsworth, who first induced Congress to appropriate money for agricultural purposes, published letters from cotton planters complaining of overproduction. One planter suggested the use of cotton in mattresses, instead of hair and moss, as a means of using up the current surplus. Another repined an expected crop of 2.3 million bales, and said that only a very unfavorable cotton growing season could really help planters. The carry-over was then 904,000 bales and, if crops continued another year at the rate of the previous one, the accumulated carry-over would provide for two years' normal consumption by 1847.

Under Secretary Hutson told the December 1945 Outlook Conference that, if cotton consumption and production continued in 1946 at about the levels of the past year or so, the cotton surplus which had so long plagued the South might actually disappear. Thereafter we could produce merely for current needs. Previously, in order to cut this surplus, we had, in the 1930's, resorted to many devices, one of them being that recommended by the southern planter in 1844—making mattresses.

Miscellaneous Publication 577 gives a full, frank, and informative report on Domestic Cotton Surplus Disposal Programs. It is by four authors, two in Production and Marketing Administration and two in the Bureau of Agricultural Economics. The action programs to increase cotton consumption, which began in 1932, had, through 1944, cost the Federal Government $137,800,000, administrative expenses included. They effected utilization of 1,384,000 bales of cotton at a rate of about $100 a bale.

The cost differed according to the program. It ran only $19 a bale to dispose of cotton in the Cotton for Paper Program, but an estimated $546 a bale to dispose of it via the Cotton Stamp Plan. Of course the latter method not only moved bales of cotton but also provided manufactured cotton articles for needy consumers. Other programs in which costs were relatively low were the Cotton Bagging for Cotton Bales, $30 per bale utilized, the Cotton Insulation, $38, and the Cotton Mattress and Comforter Program, $58.

However, the programs were instituted also to alleviate distress, hence they had social value in addition to other factors. Programs involving the smallest Federal expenditures per bale tended to cause the greatest increase in cotton consumption and the greatest decrease in cotton surplus per dollar spent. The programs were based upon numerous research activities in the fields of economic, biological, chemical, physical, and other sciences.

Many of the programs involved the finding of new uses and were of permanent value, like the experience gained in the entire conduct of all programs. A great deal is now known about how to introduce relief programs of this sort both economically and efficiently. The publication merits close study by those interested.

Tables of food composition: This is the title of MP 572, prepared by the staff of the Bureau of Human Nutrition and Home Economics, in cooperation with the National Research Council. The publication bears the subtitle "In Terms of Eleven Nutrients." It is intensely practical and forms one more in a long line of valuable nutrition publications from this source, beginning with those of W. O. Atwater many years ago. After 6 pages of explanatory matter, the publication gives 2 long tables, one showing the nutritive value of 100 grams of the edible portion of 275 common foods, in terms of water, calories, protein, fat, carbohydrate, calcium, phosphorus, iron, vitamin A, thiamin, riboflavin, niacin (the three just named are parts of the B complex) and ascorbic acid (vitamin C). The second table gives the nutritive value of 1 pound of 275 selected foods *as purchased.* We highly recommend the publication to any who wish to find out quickly what nutriment various foods provide.

USDA house organ

IN THE January 7 issue of *USDA* we at last managed to break the backlog of unpublished contributions which had to be kept much too long in manuscript or in type before they were used. Thus we began 1946 on a current basis. Naturally we want to accumulate a little overset of material which can be kept a while without dating too much, but we also want to be more timely.

This means we are once more in a position to ask for contributions. *Remember, brevity and variety are the keywords.* Most satisfactory of all are items which cover one page or less in typescript (double space) or which can be run in the extremely popular Brief but important column. Employees both in Washington and in the field are solicited herewith. Field people need not worry about clearance. We'll attend the Washington end of that.

Our questionnaire survey and other volunteered information indicate that the BBI items are perhaps more popular with *USDA* readers than anything else in the house organ. This we shall heed, and we shall try to give you more of them. It is quite apparent also that, while longer articles are appreciated in our occasional 8-page issues, *brevity and variety are most desirable of all.*

Some complain about the fact that *USDA* reaches them so long after date of issue. A part of this delay is due to the inevitable slowness of distribution, i. e., getting copies from the Government Printing Office to remote parts of the field. But remember that the GPO is, through no fault of its own, in a terrific jam. It is still shorthanded; it is now compelled to do much work that was contracted outside during the war; and it is adjusting to a 5-day week. We shall all do the very best we can, but during the next few months copies may reach you late.

Finally, many of you might like to know that perhaps the longest and certainly one of the most interesting meetings the Editorial Advisory Board ever held took place not long since in the office of the Under Secretary with Mr. Hutson in the chair. He manifested a keen, lively, and intelligent interest in *USDA.*

Now let's have your contributions—brief, snappy, and in good variety—field and Washington alike.

Science and the Government: This is the title of a suggestive and informative address by Sen. H. M. Kilgore, printed in Science for December 21, 1945.

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Library

THE FIRST agency annual report we have seen this year is that from the Library. Therein were these things we never knew till now:

The Library has half a million books on its shelves, a rare book collection of 35,000 irreplaceable volumes, and 70,000 seed and nursery trade catalogs. Its over-all circulation figure for the past fiscal year reached an all-time high of 1,659,602.

It supplied information in reply to requests on the oriental paper plant, plants that grew in the bombed areas of London, the effects of war on plant and animal distribution, analyses of the soils of Holland, and the probable effect of salt water on agricultural soils. A mother wanted to know how to take care of a coconut which her son had sent from overseas and which had sprouted. The Red Cross inquired about lespedeza seed in aid of a soldier trying to run his Georgia farm by remote control. One soldier requested a recipe for pickling eggs.

Brief summaries are given of activities carried on by the Library's staff of 200 in its 5 main divisions. Divergent requests answered included the following:

What attempts have been made to raise tea in South Carolina? Do you have pictures showing the kinds of harness used in South Africa? How can I give or sell my hair for use in making scientific instruments?

That Library of ours is a truly great and historic institution. Library, take a bow!

Introducing Col. Scott

THE NEW director of the Southern Regional Research Laboratory at New Orleans is a veteran of two world wars who took both his undergraduate and his graduate work at Yale. He is Col. Walter M. Scott, succeeding the late D. F. J. Lynch, who directed the Laboratory from its establishment in 1938 until his death a few months ago. Colonel Scott headed the Laboratory's Cotton Chemical Finishing Division until called into military service in World War II.

Colonel Scott received a number of citations during his military service, including the Legion of Merit in World War II. In July 1942 he was sent to London as assistant chief of the Chemical Warfare Service's technical division in the European theatre. He became full colonel and chief of the division in November of that year. Among his responsibilities were such protective measures as clothing, gas masks, and decontamination equipment.

Colonel Scott has also had 11 years of experience as chief chemist for a large silk-manufacturing company, 9 as service director for a chemical research organization, and a number as technical adviser to a dyestuff sales department. He joined the staff of the Southern Laboratory in 1939, specializing in fabric, fiber, and dyeing problems. He is the author of more than 40 technical papers, a founder of the American Association of Textile Chemists and Colorists, and chairman of the Textile, Dyeing, and Finishing Committee of the American Society for Testing Materials.

Production—welfare

EARLY in December 1945 Prof. Theodore W. Schultz, of the University of Chicago, made a very suggestive and stimulating address to top officials of USDA, entitled "Production and Welfare Objectives for American Agriculture." This, of course, is not an official statement of Department policy. Instead, it constitutes intelligent constructive criticism, some of it, like the statements about the need for more built-in flexibility in USDA, being made fully in the light of existing legislative enactments and other factors which cannot be changed overnight.

Most interesting was the part of the discussion keyed to these sentences: "As leading officials of the USDA, you are charged with its administration, and in that capacity you are primarily concerned with the *production* of farm products and *welfare* of farm people. That, I assume, is your province in the governmental distribution of labor here in Washington." Schultz sees the achievement of these twin objectives as inseparable from one another.

He envisions agricultural production as the use of resources to produce farm products, and the welfare of farm people as the utilization and distribution of income among persons living on farms. He regards equality for agriculture as embedded in this context. He believes that agricultural policy should be formulated along these two lines, and that we cannot casually assume that efficient farm production will automatically provide farm people with necessary incomes to attain acceptable welfare standards.

He continued that primary emphasis has hitherto been placed upon the farm production of food, feed, and fibers, and too little attention has been given the welfare of farm people. He said:

> A second mistake has been the practice of mixing production and welfare into a policy brew so spiced that no one could distinguish one ingredient from another. This mixing of policy objectives has led to much confusion and waste; all too often, as a result, particular farm programs have improved neither production nor welfare.
>
> These errors have led to a serious neglect of the welfare of farm people, and it is no wonder that farm people have fallen behind the nonfarm population in education, nutrition, housing, modern medical facilities, free time, old age and disability benefits, and other phases of social security. In a deeper sense we may well regret that these two foci inherent in agriculture were not put into the name of this important department for agriculture, which might have fared much better if at the outset the title, Department of Agricultural Production and Welfare, had been applied, or better still, the Department of Farm People.

The development of Schultz's remedy for this condition is rather technical but very illuminating. Unfortunately the argument is too long to be reproduced here, but you may obtain copies of the talk by writing to T. Swann Harding, Editor, *USDA*. Please be modest in your demands as the supply is *very* limited. Ask for a copy only if you really want to study it.

"Ingon sots"

YEARS AGO an elderly rural citizen sold truck in a small Maryland town. His offerings were easy to refuse because he always began them thus, "You don't want any 'tomats,' I reckon." At a certain time of the year he would be saying, "You don't want any 'ingon sots,' I reckon." The town had sots in considerable variety, but it took a native to know that the old fellow meant onion sets.

Something like 50 years later the USDA has decided to explain what onion sets really are and how to produce this garden staple. They are produced in only a few districts—near Chicago, in and around Greeley, Colo., and in Oregon's Willamette Valley—where soil and climate are favorable and growers know how. Seeding rates average from 20 to 30 times as heavy as when onion seed are planted to make large bulbs.

In other words, the crop is deliberately overcrowded, so that the plants cannot grow normally. This stunting also produces unusual shapes far distant from the onion's normal jolly rotundity. The crop is harvested, cured, and stored for about 6 months, then the stunted bulbs are replanted in the spring with favorable spacing. This time they form the familiar early green onion, or they may be left to mature as full-size vegetable bulbs.

Federal crop insurance

ON December 23, 1944, Congress authorized resumption of insurance on wheat and cotton, and added flax as a new commodity for general coverage. Trial insurance was also authorized, corn and tobacco being chosen as the first experimental crops.

Crop insurance is handled by the Federal Crop Insurance Corporation, an agency of the Production and Marketing Administration. It is a nonprofit program on which the Government pays administrative costs, but Congress has directed that premiums paid in must cover losses paid out. Only thus can FCIC be a sound business organization upon which farmers can depend as a permanent part of their operations.

During 1945, applications were written covering more than 550,000 farms—more than have ever been covered in any previous year of the program. Though most of the spring-wheat applications were still to be made, more wheat farms were insured for 1946 at the end of 1945 than during 1943, last year of the old program. During 1945, the insurance covered 113,000 cotton, 25,653 wheat, 38,000 flax, 12,000 corn, and 12,000 tobacco farms. The balance of the policies sold during the year covered winter wheat for harvest in 1946.

Sales of FCIC insurance are handled in the counties by county agricultural conservation committees.

Entomologists at Dallas

THE Bureau of Entomology and Plant Quarantine actively contributed to the success of the Fifty-Seventh Annual Meeting of the American Association of Economic Entomologists at Dallas, Tex., December 3–6, 1945. This meeting, held jointly with the Cotton States Branch of the Association and the Texas Entomological Society, was attended by about 250 entomologists.

The Association's president, D. L. Van Dine, who recently retired from EPQ, in discussing Involvements in Research in Present-Day Economic Entomology, pointed out that many fields of research have interests common to those of entomology. N. O. Berry, president of the Texas Society, stressed the need for bringing simple facts on insect control to the American farmer to help him protect his crops and stay in business.

Two of EPQ's assistant chiefs appeared on the program. F. C. Bishopp very ably discussed the insecticide situation, giving special attention to the several new insecticides developed in recent years and the various fields for which each appears to show promise. W. L. Popham illustrated and discussed the usefulness in cooperative insect-control programs of new equipment developed for the application of insecticides.

E. F. Knipling and H. A. Jones, of the Orlando, Fla., laboratory, presented a number of papers, prepared by laboratory personnel, dealing with the development of materials for controlling or repelling disease-carrying and injurious insects. Papers by K. P. Ewing and W. A. Stevenson, reporting on the very promising results obtained in tests of benzene hexachloride for control of the boll weevil and several other cotton pests, attracted much interest.

General Greely

SOME OF YOU may have read the article entitled "Epic of the Arctic," a story of the Greely expedition, in Reader's Digest for January. How many of you knew that the Lt. Adolphus Washington Greely there mentioned was once an employee of the Department? He was among the 6 survivors of the 23 brave young soldiers who spent 2 horrible years in Starvation Camp awaiting a rescue party which finally came in June 1884, led by Commander Winfield Scott Schley, later of Spanish-American War fame.

Greely commanded this ill-fated expedition to the shores of Lady Franklin Bay. The scientific data obtained are said to have been the greatest contributions made to our knowledge of the Arctic up to that time. For, despite starvation, illness, and deaths, the records were all kept intact and, in 1887, Greely, then a brigadier general, became the Army's chief signal officer. We write looking at two photographs of this dashing officer, resplendent in his dress uniform with sash and six medals dangling from ribbons. His beard was a magnificent creation.

Upon becoming chief signal officer, Greely completely reorganized the weather service, making it the leading meteorological organization in the world. This led to its separation from the Signal Corps and its transfer to the USDA around 1890. Greely was responsible for initiation of the Weather Crop Bulletin, the use of self-registering instruments, the flood service, the development of the telegraphic code, and a greatly expanded observational network. He was born March 27, 1844, and lived until October 20, 1935, being awarded the Congressional Medal of Honor in the latter year on his ninety-first birthday.

Rationing and health

IN HIS maiden speech in the House of Commons Sir John Boyd Orr (who resigned from Commons to become head of the United Nations Food and Agriculture Organization) remarked that wartime rationing of the British food supply had evened up food consumption, the poor getting more and the rich less. He declared that, if the levels of housing and feeding were brought up to well-recognized standards, more than half the diseases afflicting the working classes could be prevented and a decade added to the life expectancy of their children.

In Orr's native Scotland this British wartime food policy was directed at maintenance of the caloric value of the diet and high milk production, with increased home production of green and yellow vegetables. Imports of meat and fruit were curtailed, those of wheat, fats, and cheese were increased, much imported food came dehydrated and compressed, and the wheat extraction rate for flour was increased from 70 to 85 percent. As a whole, the Scottish diet exhibited minor decreases in calories, animal protein, fat, and carbohydrates and considerable increases in total protein, vegetable protein, calcium, iron, ascorbic acid, thiamin, and niacin.

Although this wartime diet was monotonous, it was adequate in calories and proteins and superior in calcium, iron, and B-complex vitamins as compared with the prewar diet. It was perhaps inadequate only in vitamins A and C. But vitamin A, calcium, and milk were distributed to pregnant and lactating women and to children of 5 or under; more meat was given expectant and nursing women; special feeding programs went into schools and industries, and the British restaurants performed notable service. Extra ration points and priorities were granted the ill; vitamins A and D were added to margarine, and calcium to the national flour.

The results were, as a whole, excellent. There was no increase in any disease except tuberculosis, and that was as much due to wartime crowding and poor sanitation as to deficient food. The incidence of common infections was much lowered. There were reductions in infant mortality, stillbirths, and neonatal and ma-

ternal death rates. Frank deficiency diseases were rare. The Government's actions were founded squarely upon nutrition science and dietary restriction did not have an adverse effect on the population. (See Nutrition Reviews, August 1945.)

Brief but important

USDA mimeographed documents: Following are the numbers and titles of our mimeographed documents, which can be supplied in limited quantities (say up to a half dozen) by the editors of *USDA*. *Write in for them,* ordering by number from T. Swann Harding, Office of Information. We prefer interoffice messenger service, or mail from the field. *But if you are in a great hurry,* phone 4842 or 4875. No. 1, Origin, Structure, and Functions of the U. S. Department of Agriculture; No. 2, Constituent Agencies of the U. S. Department of Agriculture; No. 3, Abridged Chronology of Agriculture's Part in the War; No. 4, Condensed History of the U. S. Department of Agriculture; No. 5, Current List of Top Officials of the Department of Agriculture (Abridged); No. 6, Important Recent Achievements of Department of Agriculture Scientists; No. 7, Outstanding Scientific Publications by USDA Research Workers Issued by the Department of Agriculture; No. 8, Abridged List of Federal Laws Applicable to Agriculture (Including Reference to Former Functions); No. 9, Biographies of Persons in Charge of Federal Agricultural Work, 1836 to Date; No. 10, Our Department Scientists.

Citrus crop: The American citrus fruit crop is 7 times as large as it was 30 years ago and brings in 7 times as much to growers. Recent average production is about 6 million tons annually, worth 225 million dollars. While the 1909 grapefruit crop was only one-fifteenth as great as the orange production of that era, it today equals half the orange tonnage. Until the 1930's, less than 5 percent of the orange crop was processed; during recent years the percentage has risen to 15, though that is lower than for the grapefruit crop.

Horticultural committee: On December 27, the Department announced the appointment of 42 representatives of growers and handlers to a newly organized Horticultural Industry Advisory Committee on Foreign Trade. It will counsel and consult with the Government in the development of programs for promoting a desirable pattern of foreign trade in fruits and vegetables. See Press Release 2366-45 for details; ask Press Service.

Dallas USDA Club: Polio got a sock from the Dallas USDA Club during December, when members contributed $733.60 to the Sister Elizabeth Kenny Foundation Infantile Paralysis Campaign to help fight this disease in Texas. Heading the organized campaign, in which about 700 Department employees in the area were invited to participate, was Tom W. Dawsey, Production and Marketing Administration.

Rice set-aside: On December 29, 1945, it was announced that 36 percent of the milled rice production in the South and 60 percent in California must be set aside for Government procurement beginning January 1. The set-aside has been a flat 40 percent since October 1, 1945. The increase represents an effort to facilitate Government acquisition and movement of rice into the Philippines and other Asiatic areas of food shortage.

Fats and oils: On October 1 factory and warehouse stocks of fats and oils were the smallest since 1936, and about 670 million pounds less than in 1944. Fats and oils will continue tight throughout 1946, with domestic production and consumption moderately larger, and exports smaller than in 1945.

Agricultural price policy: The November 1945 issue of the Journal of Farm Economics is largely made up of papers written for the American Farm Economic Association's contest, offering awards for the best papers on farm price policies. The winner was Prof. William H. Nicholls, of the University of Chicago, his award being $5,000. D. Gale Johnson, of the same University, won second award of $2,500, Frederick V. Waugh, of USDA, third award of $1,250, and there were several USDA people among the 15 who received honorable mention and a $250 award. Chester C. Davis was chairman of the award judges. The issue also contains an excellent Critical Examination of Marketing Research by F. L. Thomsen, of the Bureau of Agricultural Economics.

FAO: Food and Agriculture Organization's Information Service now issues an Information Service Bulletin, of which No. 1 appeared December 3, 1945. If interested, address Information Director Gove Hambidge, FAO, 2841 McGill Terrace, NW., Washington 8, D. C.

Agriculture in an Expanding Economy: This processed statement by the Research Committee of the Committee for Economic Development is an important document. Ralph E. Flanders, chairman of the Research Committee, is president of the Boston, Mass., Federal Reserve Bank; Sumner H. Slichter, chairman of the Research Advisory Board, is Lamont University professor at Harvard; the Research Director, Theodore O. Yntema, is on leave from the University of Chicago. Procure it from McGraw-Hill, New York.

Farm population: "Within the next 2 or 3 years I think we can expect possibly as many as half the 20 percent of the farm people who left to enter the armed services, or take jobs in industry, to return to the farm . . . To put it another way, I would expect the farm population—which has ranged between 30 and 33 million between the two wars, but is now down to 25 million—to come up to a point around 27 or 28 million in the next few years. Only part of the increase in farm population will come in 1946." (Under Secretary Hutson to Annual Ohio State Extension Conference, December 20, 1945.)

DDT and rat milk: Horace S. Telford and James E. Guthrie present evidence, in Science for December 21, 1945, to show that continued oral administration of DDT to goats and rats results in the elimination in their milk of a toxic substance which appears to be DDT. They ask, how about the milk of dairy cows which have eaten DDT residues either from sprayed or dusted forage plants or by licking themselves after having been sprayed or dusted with the insecticide?

Cheap trip to Russia: For an intimate report of what things are like in the U. S. S. R., both urban and rural, see the interview with Dr. Charles E. Kellogg, entitled "A Report on Russia," in December Consumers' Guide. It's as good as a trip to Russia—well almost.

"Marquis d'Orange": J. Clyde Marquis, now one of the landed gentry of Orange, Va., formerly of the Bureau of Agricultural Economics, the Institute of Agriculture at Rome, and the Country Gentleman, drifts in occasionally. He is attempting to write a book about the Department (the *USDA* editor's is done and contract signed, so we beat him to the draw) but civic affairs keep him so busy he can hardly get time to complete it. He says that after working and saving for many years he can now live on his own money while telling other people how to spend theirs. That he enjoys, he does. He looks fine.

Hello: Rural Electrification Administration and Bell Telephone Company laboratories are testing new equipment to provide phone service for thousands of farm homes now served by rural electric lines, but out of reach of the telephone. Carrier telephone equipment has been installed in the homes of four Arkansas members of the REA-financed Craighead Electric Cooperative near Jonesboro. Speech is transmitted via carrier waves of radio frequency, which travel along the co-op power lines with the power supply. Electronic transmitting and receiving equipment is installed at the switchboard in the exchange and at the subscriber's end also, dial phones being used. The project is still in an experimental stage but, if it works, as is hoped, it will add immeasurably to the value of REA-financed power lines.

Dr. Duvel: Joseph William Tell Duvel died in Washington January 8 at the age of 72. He was connected with USDA for 40 years, first as a laboratory scientist in the grain standardization work. In 1925 he became head of the Grain Futures Administration, predecessor of the Commodity Exchange Administration (created in 1936) in enforcement of the Commodity Exchange Act. This work later went into the Agricultural Marketing Administration and Office of Distribution, and is now carried on in Production and Marketing Administration. Dr. Duvel headed this work from 1925 until 1940 when he retired. Then he returned as associate chief of CEA from 1940 until 1942. He was a native of Ohio and a graduate of Ohio State.

Farmer Takes a Wife: If you want to read a really interesting and informative account of New England farm life, seasoned with salty humor throughout, get this book of John Gould's, published by William Morrow of New York.

February 4, 1946 **Vol. V, No. 3**

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USDA

FOR FEBRUARY 18, 1946

Extension Institute

THE OPENING theme of the Extension Institute this year (January 7–8) was World Agriculture and Extension Education. The opening speaker was Sir John Boyd Orr, Director General of the Food and Agriculture Organization of the United Nations. He arrived escorted by Secretary Anderson, who introduced him, Director Wilson, Gove Hambidge, who handles FAO information, and Nathan Koenig, the Secretary's executive assistant.

Sir John, who bears a striking resemblance to movie actor C. Aubrey Smith, is in every way a remarkable man and a grand person, as the Secretary said. For many years he carried on outstanding scientific research in the field of nutrition. However, he was not content with this. He instituted surveys to find out how the British people of different income classes actually were eating. He actively sought means of feeding them better.

Only a few months ago he was elected to Parliament and he determined to devote the remainder of his life to his duties there and to his farm. But he was induced to drop this plan because he was the one individual who appeared capable of getting FAO off to a propitious start. After the Secretary's felicitous introduction Sir John spoke ably, clearly, and concisely about the origin, functions, and objectives of FAO.

Another stimulating speaker was Dr. Mark Graubard, biological scientist and author of such books as Biology and Human Behavior; Man's Food, Its Rhyme and Reason; and Man the Slave and Master. His subject was the educational implication of the atomic bomb. His exposition was masterful and compelling.

While Sir John's talk was "off the record," you can procure Gove Hambidge's summary from Extension information; unfortunately no copy of Dr. Graubard's talk is available.

N.Y.C. USDA Club

IT WAS our luck the other day, when in New York City, to get tangled up with A. J. G. Illian, former president of the New York USDA Club, and a supervisor under the Commodity Exchange Administration in New York City. Though we were on annual leave, nothing would do but attend the January 17 luncheon meeting of the club, which was being held at a private dining room in the Hotel Pennsylvania at $2 a plate. Having seen this club turn out only some 30-odd members for an excellent luncheon meeting we feared for the worst, but we failed to allow for the subject of personnel in postwar, presented by Director of Personnel T. Roy Reid.

Actually 115 members were in attendance—top-bracket and low-grade clerical—ready and willing to expend $2 for a luncheon and to meet with their fellow employees. It was a most representative turn-out and was likewise indicative of a considerable recrudescence of interest in USDA Clubs the country over. Attendances 8 and 10 times as large as those of wartime are quite common in many cities as restrictions lapse, meeting places and eating places become available, and work permits.

This is an extremely healthful sign. For, as Mr. Reid said, the USDA is one Government agency which undertakes even more important and extensive tasks at peace than during war—this despite the fine wartime record of USDA. Our staff actually diminishes during war to increase during peace, in order to provide the American public with the very necessary services it requires of the Department.

Mr. Reid's talk on the general postwar employment situation in the Government and in USDA in particular was excellent. Well organized, logical, and highly informative, it was also brief and to the point. It seems rather a shame the club didn't have a stenographer present to take it down for later mimeographing and distribution among all employees in the New York area; with very slight editing it would have made a highly useful document for every employee to study. W. C. Hackleman, PMA Fruit and Vegetable Branch, is president of the club.

Science notes

TDE (which in its more austere moments is 1,1-dichloro-2,2-bis (*p*-chlorophenyl) ethane) may soon be added to DDT as a destroyer of mosquito larvae. Work reported in Science for January 4, by Christian C. Deonier and Howard A. Jones, of the Bureau of Entomology and Plant Quarantine, indicates that this substance has real possibilities. Under some circumstances it has displayed greater toxicity to the larvae (of *Anopheles quadrimaculatus*) than has DDT. At least these preliminary tests warrant further investigation, as TDE is not difficult to manufacture on a large scale.

About the time of this announcement, P. N. Annand, Chief of EPQ, addressed himself to the moot problem of DDT destroying the "balance of nature." He very wisely remarked that "Nature is grossly out of balance when there are extensive outbreaks of insect pests." Hence substances used to quell such outbreaks can scarcely be regarded as themselves destroying a biological balance which nature has already destroyed. However, extensive tests are now being made to determine the effects of DDT on beneficial insects, birds, fish, and other wildlife. But Dr. Annand seems right in remarking that destruction of a forest area by such a pest as the spruce budworm surely disturbs the balance of nature, and, if DDT can check that, it may be regarded as itself beneficial.

Meanwhile, M. S. Shahan and L. T. Giltner, of the Bureau of Animal Industry, continue their researches on equine encephalomyelitis, a virus disease that *may* attack man, but which seems at present to confine itself pretty exclusively to horses and mules. Mosquitoes can transmit the disease to the horse and other warm-blooded animals, birds included. Further confusion is added by the fact that there are eastern and western strains of the disease. BAI has reports of half a million cases since 1935, and discouragement over loss of animals often causes farmers to substitute tractors for them. Since 1938, when an effective vaccine was developed, more than 7

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million 2-dose vaccinations of animals have been made. This affords satisfactory protection but must be repeated annually. While the scientists have yet to locate the "reservoir" in which the infection lives over from year to year, mosquito control with DDT may in time greatly reduce losses from equine "whatyoucallit."

Still in the quasi-medical field, Bureau of Dairy Industry scientists have shown recently that penicillin is useful for food preserving because of its destructive action on bacterial spores. Most fortunately of all, penicillin has remarkably high killing power against spores of high heat resistance—and it is a fact, you know, that some micro-organisms are capable of living even in hot springs. As penicillin is also nontoxic, a new field of usefulness opens for it. Tests are first being made on evaporated and fresh fluid milk.

Agricultural Research Administration has issued two new Research Achievement Sheets. No. 47 tells about the development of our own domestic sugarbeet seed production to replace imports. It was most fortunate we had this technique when World War II broke out. The work was done by E. W. Brandes, G. H. Coons, and others; its total cost was about $400,000, and it is worth 1.5 million dollars *a year*. No. 48 records the discovery of a method for making an improved tuberculin which permits more accurate detection of tuberculosis in cattle, swine, and poultry. The method was developed by Marion Dorset, R. R. Henley, and others; it cost perhaps $25,000 and is worth from $50,000 to $500,000 *a year*, depending upon the number of animals tested.

"Practical scientist"

IN CONNECTION with the article about his work under this caption—in *USDA* December 10—Dr. W. E. Garnett, of the Virginia Agricultural Experiment Station, writes, sending a mimeographed letter proposing the establishment of a Virginia (State) Council on Health and Medical Care. He also has en route to us a legislative report on rural health and medical care to which he devoted a good part of what would have been his last summer's vacation. He continues:

Since you appear to be interested in efforts to follow up research work, may I say that for some years I have rather systematically followed a plan of . . . promoting activity . . . for making use of research results. In this connection you may be interested in our practical efforts to follow up the marginal population study. We followed the same plan in our rural church study.

I might add further that I have pursued the practice of systematically keeping before the public problems considered in our research projects. Thus, we have kept the marginal population problem before the State for more than 10 years, and the rural medical care problem for 5 years. We are just starting a new project on rural housing and expect to follow the same plan in this connection.

When sociologists become this practical, things really are picking up in Virginia—and for social science generally.

Meet P-32

A CYCLOTRON is a machine in which ordinary elements can be bombarded to render them radioactive. If you could do that with phosphorus, for instance, you could then trace phosphorus right from soil through the plant and back to the soil again. Matter of fact, you could trace it from soil to grass to cow and then see what it did in the cow, where it went, what tissues it invaded, how it got into various body fluids, and so on. Well, you can do that to phosphorus, and it bears more than a faint resemblance to what was done with uranium in making atomic bombs.

Ordinary uranium is symbolized by scientists as U. An isotope of uranium (an isotope has the same atomic number as the original but slightly different atomic weight) is symbolized as U–238. Under bombardment in the cyclotron, it captures a neutral particle called a neutron and becomes another variant or isotope symbolized as U–239. This can give off a beta particle or electron (one of the basic constituents of matter) and become neptunium or Np–239. This, in turn, gives off still another particle, becomes bright green plutonium, Pu-239, and that is the atomic bomb ingredient.

Phosphorus, with an atomic weight of 31, becomes P–32 in the cyclotron, under bombardment by ions of heavy hydrogen (or deuterons); that is, a few atoms per hundred thousand can be so transformed. This P–32 is a radioactive isotope; it has a neutron in its nucleus which increases its atomic weight. Its chemical and physical properties remain unchanged, but it has a nervous person's propensity to blow up. In doing so, it ejects a negative electron, and becomes a commonplace, stable, nonradioactive atom of—sulfur!

Machines exist which can register the discharge of electrons from atoms of P–32. Thus the passage of such irradiated phosphorus (or other chemical) can be detected and followed in soil, plant, or animal. The method is far more sensitive than chemical analysis. And that is how atomic chemistry and cyclotrons are being used today in agricultural research at the Beltsville Agricultural Research Center.

Meanwhile joint research at the University of California and Washington University has recently given scientists two new organic acids containing carbon 14, which is radioactive (C–13, the heavy form of ordinary carbon, C–12, was already being used in research). Microbes synthesized these radioactive acids when fed C–14. Now the conversion of sugar into fat and many other dark secrets of metabolism may soon be elucidated.

New landscapes

THE New York Times (January 6) commented on Soil Conservation Service's announcement that farmers had organized 1,415 districts in 45 States, covering 778,319,914 acres on 3,578,871 farms. There are also 20 Grass Conservation Districts which control 6,766,555 acres on 1,849 ranches.

The remaining three paragraphs of this editorial form as good a piece of SCS educational matter as this valuable agency could produce for itself. They are quoted for the benefit of the many who did not see them in the original.

The Soil Conservation Districts • • • are local subdivisions of Government organized by farmers themselves through petition and referendum, chartered by State Governments and administered by boards of directors chosen by ballot among the farmers of a district. This places the work of the district directly in the hands of those concerned. It means, in effect, that soil conservation practices are applied to a sizable area instead of an individual farm.

The basis of the new landscape pattern is a curve instead of a straight line. Furrows follow the contour of the landscape instead of going up and down the slopes, thus preventing the run-off of valuable top soil. Strip-cropping, alternate strips of cultivated soil and grass, help hold the moisture. On slopes of certain steepness terraces are built around the contours.

Since the first colonists began farming, early in the seventeenth century, the Nation has mined its soil even as it has mined its forests and other natural resources. For three centuries the depth of the top loam has been decreasing. Health-giving chemicals of the soil have been depleted. Now the tide has turned. Complete victory is not achieved, but the tragic waste of fertility that has trickled from hillsides and slopes to the brooks, thence to the rivers, and been lost to the Nation's farms, is being checked. The traditional straight furrow is disappearing. The new landscape pattern is one of curves. And as one sees the curving lines on the farmlands he will know that a better era in American farming is on the way.

A supervisor's job

INTO THE crowded field of books on supervision comes a little volume, Supervising People, by George D. Halsey, of the Farm Credit Administration Third District. He begins with a graphic definition of supervision as the description would naturally grow out of a conference. This is followed by six qualities important to the success of a supervisor. These are selected and described with a keen insight into the practical day-to-day problems of working people. The understanding of human behavior is illustrated by a series of homely examples based on recognized psychological principles. The necessity of a successful supervisor being popular with his employees is properly emphasized.

The preparation of job specifications, use of tests, interviews, and job evaluation are touched briefly and skillfully. Halsey's recommendations for getting a new employee off to a good start closely follow the Department's policy for orientating new employees. The supervisor's responsibility as an instructor is carefully outlined. Problems such as measuring and rating, correcting without offending, handling dismissals, and improving work methods are briefly analyzed. The whole subject is summarized around a suggested program for the supervisor who desires to improve himself. The book is interestingly written, easy to read, and so practical its suggestions can be used the next day.—DAN M. BRAUM, PERS.

Gleanings from REA

RURAL ELECTRIFICATION ADMINISTRATION reports that the true measure of a farm tenant's progressiveness is his attitude towards electric power. At least one Missouri landlord has announced to all concerned that he will have no tenants on his farm who are too old-fashioned not to want electricity. Most tenants, however, are as eager as their landlords for such service.

REA also insists that a cow cannot achieve a proper state of contentment when her water tank is frozen up by wintry blasts. While adding water to the milk after it leaves the cow is an ancient rural custom now almost wholly discarded, the cow herself must have ample water to be a good milk producer. An electric stock tank heater will keep the water from freezing. These heaters are practical, inexpensive, and can be used safely where open-flame heaters would be fire hazards. It costs about $3 a season to run one and keep many cows tranquil, content, and actively productive.

Finally, REA tells us, its co-op borrowers often provide electricity to light village schools and also to enable them to plug in hot plates for warming lunches and to have electric clocks, educational motion pictures, and other comforts and conveniences. Some 18,000 rural schools have been connected to REA-financed rural power lines. The children are often so pleased at the transformation of cloudy days into bright ones that they write spontaneous letters of gratitude to co-ops which serve them.

Rutin

RUTIN IS a little-known substance which chemists in their more facetious moments call "flavonol glucoside". It occurs in various plants, including tobacco. The Eastern Regional Research Laboratory determined the percentage of rutin in different kinds of green and cured tobacco and developed methods for extracting it from tobacco and other plants. Then the lab extracted enough rutin from flue-cured tobacco for cooperative research on its biological effects by the Bureau of Animal Industry, and on its therapeutic value by the Medical School of the University of Pennsylvania.

Rutin was found to be nonpoisonous to laboratory animals and to clinical patients. The clinical tests also showed rutin to be definitely effective in treating a pathological condition known as "increased capillary fragility," which is sometimes associated with high blood pressure, and causes minute blood vessels or capillaries to rupture—occasionally in the eye or brain with attendant blindness or apoplexy. Most of the patients treated with rutin showed marked improvement, especially where rutin was combined with remedies for high blood pressure.

Analysis of other plants showed that buckwheat is more promising as a commercial source than any other examined. While the percentage of rutin in buckwheat is highest (about 3 percent of dry weight of plant exclusive of roots) when the plant is in bloom and before any seeds are set, the greatest yield per acre would be obtained about 3 weeks later when the plants have made their maximum growth and set all their seed. At that time the yield per acre would be 3½ to 4 times as great as at the time of highest concentration in the plant. Most of the rutin is in the leaves; very little is in the stems and none is in the seeds. Much of the rutin is lost when the plants are dried, especially if they are dried slowly. Under the best conditions of drying, more than a third of the rutin is lost.

The Eastern Laboratory prepared about 20 pounds of rutin of medicinal purity from freshly harvested buckwheat plants, more than had ever been isolated before, and samples adequate for evaluation were supplied to more than a hundred physicians and pharmacologists for use in clinical studies. The results gave further evidence of the value of rutin for reducing increased capillary fragility to normal and showed that rutin can be used safely with thiocyanates and other drugs for reducing high blood pressure. Rutin is now in commercial production.

A hundred years ago

ON January 28, 1845, Henry L. Ellsworth handed in his final annual report as Commissioner of Patents. He was succeeded by Edmund Burke whose report, issued in 1846 but for the year 1845, announced the expenditure of $745.55 for agricultural purposes. The Patent Office received no appropriation for agricultural work in 1846, and the work was interrupted for the only time since 1839, when Ellsworth was instrumental in persuading Congress to appropriate the original $1,000 to the Patent Office for the collection and dissemination of agricultural plants, seeds, and statistics.

In his above-mentioned report for 1844, Ellsworth discussed methods of improving the fertility of the soil and announced that chemical analyses of grains, soon to be published, would tell dyspetics which meals—the ones containing excessive oil—to avoid. He suggested an intensive campaign against the wheat-destroying hessian fly and remarked that the annual appropriation for agricultural purposes should be increased by at least $1,000.

Ellsworth also declared that the "husbandryman" and agriculturist were fortunate men. Labor-saving devices were coming to their rescue almost daily, and mowing and reaping would soon be performed by horsepower wherever the land was smooth. The agricultural report made a document of 520 pages with index, and Burke's report for 1845 carried a thousand pages of agricultural matter. That brings us to 1846, just a hundred years ago, when Federal agricultural work subsided for the only time since it began.

Brief but important

Balance Sheet of Agriculture, 1945: This is the title of MP 583, issued from the Bureau of Agricultural Economics in December 1945, prepared by five authors under the direction of Norman J. Wall, head, Division of Agricultural Finance. It presents the financial condition of agriculture viewed as a single integrated industry. It is the first of a series of annual reports designed to carry forward the comparative consolidated balance sheet of agriculture to be found in MP 567, June 1945, The Impact of the War on the Financial Structure of Agriculture.

Books and publications: Readers of *USDA* often ask us where to get books and publications we mention, sometimes implying we do not say where these are available. Those by outside publishers must, of course, be secured from them, although the USDA Library may have them. All USDA publications are cited as such; often we give the name of the agency that issued them; if so, apply to that agency; if not, secure from the Office of Information, which also supplies press releases and speeches by top officials.

Item: The Bureau of Animal Industry should have been among the agencies named in the third and last paragraphs of the article, Scientific personnel, front page, December 24 issue; its chief also belongs to the interbureau advisory group. Also Secretary's Memorandum 1140, Supplement 1, came along January 4, to say that the Director of Personnel had been added to the membership of the Policy and Program Committee announced in the original memorandum, and that D. A. FitzGerald had been appointed secretary of this committee.

Prepaid Group Medical Care: The editor of *USDA* has some reprints of his article by this title in the October 1945 American Journal of Economics and Sociology. Farm Security Administration medical co-ops are discussed therein.

Frozen foods: Experiments on frozen foods are said to be under way in many State colleges and universities. The University of California is working on the freezing of fruit juices, the University of Wyoming on freezing eggs to preserve the fresh-egg value, Texas A. and M. on the freezing of completely balanced meals in package form, and Louisiana State on processes to improve the flavor of frozen shrimp and other seafoods. At present about 35,000 dealers handle frozen foods, a number expected to rise to 50,000 by 1950, while some anticipate that our present 165,000 home and farm storage units will increase to as many as 10 million in the not distant future, although experts feel the figure is too optimistic. Increased interest in frozen foods is interpreted to be part of the rapidly developing science of nutrition in which USDA had a large part. It is initiating projects to study the merchandising of frozen foods.

Veteran training: Personnel Circular 158, December 17, 1945 (apply for it through your personnel officer), states the procedures for training, setting up, and supervising on-the-job veterans under Public Laws 16 and 346, Seventy-eighth Congress.

USDA Club Directory. The Office of Personnel's Division of Training has issued a helpful USDA Club Directory to assist Department officials in contacting the club officers and in attending club meetings when in the field. It also facilitates club business procedures directly. The history, purpose, and organization of the clubs are discussed in the USDA Club Guide, issued March 1945. Apply to E. R. Draheim, of Pers., for these pamphlets.

Nondiscrimination in employment: Secretary's Memorandum 1141, January 5, transmitted President Truman's letter to all Department heads forbidding job discrimination on a basis of race, creed, color, or national origin. Reference was made also to General Departmental Circular 34, April 17, 1944, which reads, "In filling vacant positions the best qualified person available will be chosen, regardless of race, sex, color, creed, political affiliation, personal sponsorship, or other extraneous considerations."

Personnel change.: Dr. Karl C. Hamner has become director of the Bankhead-Jones Plant, Soil, and Nutrition Laboratory at Cornell, succeeding Dr. L. A. Maynard, who returns to the Cornell faculty. Dr. Harold E. Eisele, Office of Personnel, has become assistant director of the Graduate School. He is an Iowa State graduate, was formerly in Soil Conservation Service, and later in the Division of Training, Office of Personnel.

BAE top personnel: Top appointments in the Bureau of Agricultural Economics were announced by H. R. Tolley, Chief, January 7. F. F. Elliott is the new BAE associate chief, in charge of coordinating statistical work and economic research throughout USDA; W. F. Callander becomes assistant chief in charge of crop and livestock statistics, and chairman of the Crop Reporting Board; Sherman E. Johnson becomes assistant chief in charge of economic research in production; O. V. Wells is assistant chief in charge of economic research in income and distribution; Ray C. Smith becomes assistant chief in charge of program analysis and research in farm population and rural life; and Bushrod W. Allin becomes chairman of the Outlook and Situation Board. See Secretary's Memorandum 1139 or press release 36–46.

Diet: Dr. C. A. Elvehjem, of the University of Wisconsin, has found (according to the New York Times of January 6) that drastic changes in diet may at times be harmful, even though beneficial foods are added. He recently told the Chicago section of the American Chemical Society that, though a high level of protein is desirable in the diet, it has been discovered that a deficiency in one of the vitamin B complex, pyridoxine, develops more rapidly on rich than on poor protein diets. Also a high level of fat in the diet may tend to reduce tooth decay, but likewise to reduce the necessary synthesis of vitamins in the intestinal tract.

Yule trees: Forest Service folk on the Lassen National Forest in California sent 125 "silver tip" Christmas trees (red fir) to stations in the far Pacific and 21 large trees to Hawaii to help make Christmas bright for the boys in the armed forces. Plumas National Forest folk furnished the Navy station on Treasure Island a large tree for central decoration and 150 smaller ones for indoor use; also sent 200 white firs to the port of embarkation in San Francisco for men who were spending Christmas in troop transports on the high seas. The President's Christmas tree, which adorned the Truman home in Independence, Mo., where Mr. Truman and his family spent Christmas, came from the Pike National Forest, through cooperation of FS folk in Colorado.

Opportunity for veterans: To the returning veterans in the field the correspondence courses provided by the Graduate School offer varied educational opportunities in agriculture, Federal administration, mathematics, statistics, and professional improvement. For a complete listing and description of these courses, write the Graduate School, USDA, Washington 25, D. C. Consult your "GS Bill of Rights" so you may take advantage of its educational provisions.

World fertilizer situation: The global fertilizer situation is critical. Serious shortages of commercial fertilizer threaten a record production of food in 1946. The over-all world shortage of nitrogen, phosphoric acid, and potash is estimated at a million short tons. Greater emphasis on production and effective distribution, and a reduction in the general level of plant consumption in all countries, are recommended.

Brotherhood Week: Brotherhood Week, announced by President Truman as an aid to victory over those who exploit racial and religious hatred to divide the world and destroy freedom, is February 17–24. The National Conference of Christians and Jews, 381 Fourth Ave., New York City 16, has issued an informative leaflet on the objectives and observation of this week, prefaced by a letter from the President.

Farm publishing program: According to Publishers' Weekly, the D. Van Nostrand Co., of New York, is initiating a broad farm-publishing program. Books in this series, designed for use by farmers themselves, will be under the supervisory editorship of former USDA employee Gove Hambidge. Comprehensive volumes on basic agricultural subjects, as well as on matters of interest to part-time farmers and small home owners, will come out under the general designation Van Nostrand Farm Handbooks. First in the series is What Is Farming? by Gus E. Larson, of the Bureau of Agricultural Economics, and Lt. Walter M. Teller, USN, and other USDA specialists.

Roasted eggs: A Boston firm announces production of roasted shell eggs to be sold for use in egg salads, as stuffed eggs, for school lunches, in chopped-egg sandwiches, on picnics, and so on. The flavor differs from that of the familiar hard-boiled (or saloon) egg—is described as nutty. High temperatures and dry heat are used to drive the egg nuts. In this connection you may also be interested in Secretary Anderson's announcement of the 1946 egg price-support program, issued December 27, 1945. Ask Press Service for 2362–45.

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Livestock branch, PMA

THE LIVESTOCK BRANCH of the Production and Marketing Administration incorporates the functions of the Livestock and Meats Branch of the former Office of Marketing Services, the Wool Section of the former Office of Basic Commodities, and the purchase and sales functions for meat and wool of the Office of Supply. The branch is responsible for inspection of all meats and meat food products prepared and processed under the Meat Inspection Act; for over-all livestock production and marketing programs, and the administration of purchases and sales of meat and wool by the Federal Government; for War Food Orders, market-news service, standardization, grading, and investigations for improvement in marketing practices and techniques relating to livestock, meat, and wool.

Reorganization has integrated livestock operations so that broad production and marketing programs may be inaugurated and carried out under the direction of a single agency. Field offices conducting work in inspection, grading, market news, and administration of regulatory laws continue to function under the direct administration of the branch. Thus, the branch works with all phases of the industry, from the time the livestock is produced on the farm until the products are marketed.

The branch administers three regulatory acts. Under the Packers and Stockyards Act, it supervises livestock marketing at about 200 public stockyards to protect farmers and producers against unfair or fraudulent practices and unreasonable rates for services rendered in connection with the sale of their livestock. The Meat Inspection Act provides for Federal supervision of the preparation of meat and meat-food products moving in interstate or foreign commerce and inspection of imported meats and meat products. The Insecticide Act prohibits the manufacture, sale, or transportation in interstate commerce of adulterated or misbranded insecticides and fungicides.

The work of the branch really began many years ago in the Bureau of Animal Industry, the Bureau of Chemistry, and the old Office of Markets and its successor organization. Under Director H. E. Reed who has had a long and successful record in livestock work, the branch takes an active part in developing livestock production along with marketing in accordance with goals set up. The branch recognizes that economy of production involves the whole field of marketing, including transportation, processing, and selling. Anything less comprehensive would fall short of its goal.—GRACE E. M. WAITE, PMA.

The how of the pop

POSSIBLY you have wondered how and why popcorn pops. USDA corn specialists have the answer. It pops by steam power. Best results occur when the kernels contain from 14 to 15 percent of moisture. This is true of even new high-yielding hybrids which expand 25 to 30 percent more in popping than the old model corn.

Most popcorn sold at retail is held in hermetically sealed cans at the proper moisture content for superior popping. If you want to keep any unpopped corn over, this can be done by sealing it in glass fruit jars with a rubber ring. If the corn seems too dry, put a few drops of water in the jar with it.

Or you can simply keep the shelled corn hanging in a cloth bag on a porch ceiling hook in fall, winter, and spring, and near the basement floor in summer. This works quite well in humid climates.

Man of earth

THIS STORY concerns a remarkable farmer we met the other day. The mark of earth was upon him and love of the soil shone in his eyes. He had surpassed his three score and ten by three more years, yet he was active, keen-minded, progressive. He was truly a man, standing over 6 feet, and one easily believed him when he said that in youth he had often felled opponents with a blow. His clothes were careless and battered, but the soil was his heritage and the very cows loved him so they would come out of the tall corn at his call.

His education encompassed 6 months in a one-room rural school—and 70 years of experience. But he had love of earth, and the shrewd, humane, versatile, many-sided intelligence which alone can produce a successful farmer.

Over half a century ago he bought a hundred acres of woods from his grandfather. It cost him a dollar an acre and paying the debt was the hardest job of financing in his life. Two or three years ago he sold second-growth timber on half that original hundred acres for $7,500 and, had he held it until now, he could have gotten twice that. Today he has more idle money than he knows what to do with, yet he had just turned another bit of woods into $5,000 worth of Government bonds, because he couldn't live forever and his people knew bonds better than timber.

All his 12 or 13 hundred acres were in woods when he bought it, and he spent a good part of his early years cutting, sawing, and selling tall timber. But this he did wisely, letting it grow elsewhere, and today he has only 600 acres in cultivation. Tobacco is his cash crop but distinctly not his only crop, for he invented diversified farming out of his own philosophy for himself.

One man's way

He pointed to an automobile and said: "The Government gave me that automobile free for nothing in the thirties, for I was already doing everything the farm experts thought I ought to be doing on this farm. I had diversified, I used fertilizer, I pastured and contoured to save soil, so the Triple-A payment was just a gift to me."

He not only had a dairy herd, he raised beef cattle and was slaughtering during my visit. He had sheep on the place, and chickens, too. He raised all the feed for his poultry and animals and as much of his family's food as possible, for he doesn't believe farmers should rush down to the store and buy anything they can produce for themselves. He pitied the one-cash-crop operators and saw the error of their ways. He had modern, expensive equipment, all paid for, but too little help.

He even had a road machine to scrape his roads and keep them in such condition that his truck loads, though bigger than his neighbors', didn't turn over as they do on rutted roads. He was intelligent and foresighted in every operation performed. He now has eight tenants decently housed.

Aside from this he is a leader in the community, active and appreciative of all Federal and State programs of farm aid, a Sunday-school superintendent, and an incessant crusader for better education. He has time for everything—for work, for community activity, for recreation, and for prayer. He has had 3 wives (lost 2 by death) and some 15 children, but is now kind of preparing for the end of the race. He is finishing the course, calmly content.

Rudolph Michael, Virginia extension editor, and E. G. Stokes, of Kenbridge, Lunenburg County, introduced this honorable gentleman.

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FOR MARCH 4, 1946

President's message

IN HIS COMBINED budget and state-of-the-Union message, delivered to Congress January 21, in the unprecedented length of 25,000 words, President Truman again recommended "legislation providing an adequate salary scale for all Government employees in all branches of the Government"—as he had previously recommended September 6, 1945.

While he said, "None of us likes subsidies," he expressed doubt that all food subsidies could be eliminated by June 30, 1946, as had been hoped earlier. He felt, however, that the subsidies should be removed immediately when the cost of living declines below present levels.

He said: "Our long-range agricultural policies should have two main objectives: First, to assure the people on the farms of a fair share of the national income; and, second, to encourage an agricultural production pattern that is best fitted to the Nation's needs. . . . We have the technical knowledge and the productive capacity to provide plenty of good food for every man, woman, and child in the United States. It is time we made that possibility a reality."

He recommended the appropriation of 270 million dollars for " 'conservation and use of agricultural land resources'—the so-called AAA program—for the fiscal year 1947," and that the loan authorization of the Rural Electrification Administration be increased to 250 million dollars. He mentioned the forest land-acquisition, Farm Security and Farm Credit Administration programs specifically, and favored expansion of the school-lunch program and financing of the Commodity Credit Corporation's programs through the 500 million dollars of lend-lease funds Congress earmarked for price-support purposes.

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Cotton mechanization

FRANK J. WELCH and D. Gray Miley, of the Mississippi Agricultural Experiment Station, write informatively on the mechanization of cotton harvesting in the November 1945 Journal of Farm Economics. They agree that complete mechanization of cotton production is closer today in the Yazoo-Mississippi Delta than ever before.

They give comparative figures of $37.76 for hand-picking a bale of cotton, at the prevailing rate of $2.36 per hundred, and of $33.40 for machine picking. The latter figure is derived from the use of 12 machines to harvest 2,229 bales during 1944. It breaks down to $3.84 for direct operating cost, $3.54 for depreciation and interest, $18.40 to cover grade loss attributable to mechanical harvesting, and $7.62 to cover the value of cotton left in the field that would have been picked by hand labor. Even then the cotton picker saves over $4 per bale.

The rate and extent of shift to mechanical harvesting will depend on many factors, such as the supply and cost of hand labor, alternative opportunities for displaced plantation labor, progress in technical improvement of various devices used in picking and cleaning cotton, and, finally the genetic development of varieties more amenable to machine harvest. If better techniques of using machines are developed to harvest cotton on rolling upland, small farms, and small-field areas, that also will be an important factor.

Two paragraphs of the summary merit direct quotation:

> A shift to mechanization of the cotton harvest will leave its impact on both the cotton plantation and the "family size" farm unit. Relatively complete shift to mechanized operation will mean a heavy displacement of labor in both types of areas. The traditional plantation system, as such, will undergo significant changes. The whole institutional arrangement within the plantation areas will be subject to drastic change, and the farm population may shrink 55 to 65 percent. . . .
>
> American cotton production must be made more efficient if it is to compete successfully in the market place with foreign-grown cotton and synthetic and substitute products and, at the same time, bring the producer anything like an adequate income. The economic and social dislocations and adjustments, as well as the ultimate benefits that rather complete mechanization of cotton production and harvesting will inevitably bring, must be shared by society as a whole.

Three-time winner

FARM SECURITY ADMINISTRATION was a 3-time winner when the Progressive Farmer anounced its Men and Women of the Year awards for 1945. Frank Hancock, former FSA Administrator, Frank A. Boutwell, FSA's regional health specialist at Dallas, Tex., and Erna Proctor, regional home economist at Montgomery, Ala., were named in the magazine's ninth annual selections of southern men and women who have made outstanding contributions to rural living.

In making the awards, the Progressive Farmer said Hancock, who served as FSA Administrator from November 15, 1943, to November 15, 1945, was selected "because of the superb work he did as head of the Farm Security Administration to help worthy tenants become homeowners." His achievements in reorganizing the agency, winning congressional support, developing the FSA veterans' farm-loan program, and generally "helping the small farmers to help themselves," were cited as specific examples of his services to agriculture.

Boutwell was honored for his "pathfinding work in helping low-income farm families with their health problems." "From the seed of interest planted by Boutwell," the magazine says, "has come Texas' full-flowered Statewide rural health program." In his 11 years as health specialist, Boutwell has helped organize prepayment medical associations to provide better medical care for nearly 25,000 low-income farm families in Texas and Oklahoma.

During the past 10 years Miss Proctor, as regional home economist for Alabama, Georgia, Florida, and South Carolina, has helped 100,000 low-income farm families with their homemaking problems, giving special emphasis to nutrition and health. "Before they can increase their income, they must improve their health, so they will *feel* like working," she says. "Then . . . they can improve their homes, give their children more schooling, and enter into more social and community activities."—ELEANOR DOAK, FSA.

High water

A PROSPECTIVE Soil Conservation Service cooperator and Farm Security Administration borrower was waiting beside the road with a rowboat during the January 1946 flood in Lawrence County, Ky., because he knew the SCS district workers, Howard Burdine and Richard Moore, and the FSA Supervisor, Coy M. Hibbard, would be there that day to work a farm plan. The backwater covered the road and made it necessary to ride in a boat across a big valley. After the boat ride, the visitors had to take to the hills and to skirt another valley of floodwater to reach the farm.

Yes, in spite of high water, the plan and loan were worked with this Big Sandy mountain farmer. Mutual respect and good cooperation were found in making a sound farm plan on the bank of the muddy Big Sandy, even though there were three pairs of wet feet and one wet seat (caused by carrying Moore, who was without boots, through a short cut of backwater, and by Burdine's ability to sling water while trying to paddle).—COY M. HIBBARD, FSA, Louisa, Ky.

Top-flight co-op expert

DR. E. A. STOKDYK, 48, president of the Farm Credit Administration's Berkeley Bank for Cooperatives from its inception, in 1933, until his death on January 22 last from a heart attack, will be missed greatly. In the West his work with cooperative marketing and purchasing associations brought about many changes in procedure and business methods, and all over the United States his books and articles on economics are known and respected.

Stokdyk was born on a farm in Sheboygan, Wis., and was educated in that State. He served with the Navy during World War I and then returned to the University of Wisconsin where he received his B. S. in 1920. He was associate professor of plant pathology at Kansas State in 1921–24 and earned his M. S. degree in 1924 while teaching. In 1924–28 he was associate professor of agricultural economics. In 1929 he received his Ph. D. in agricultural economics at the University of Wisconsin.

In 1929 he was called to the University of California as associate professor of agricultural economics, a post he held until 1933, when he became president of the newly formed Berkeley Bank for Cooperatives. In 1938 Dr. Stokdyk was called to Washington, D. C., for a year as Deputy Governor of FCA. In this capacity, he became a national figure in the field of agricultural cooperation and finance. When the American Institute of Cooperation was reorganized in 1944, he was named a trustee and served actively as chairman of the Educational Committee. At the time of his death, he had just announced a correspondence course in agricultural cooperation.

Dr. Stokdyk was known as a keen critic and authority, in the field of agricultural cooperation, finance, and law. His best known book is The Law of Cooperative Marketing, written in collaboration with Frank Evans. He was a voluminous writer and his articles, published and reprinted in cooperative and economic journals, made him outstanding as a cooperative theorist, with a solid foundation of practical experience.

Herrick and Hilbert

HORACE T. HERRICK left the directorship of the Northern Regional Research Laboratory at Peoria, Ill., to become special assistant, on January 28, to Dr. O. E. May, Chief of the Bureau of Agricultural and Industrial Chemistry. Mr. Herrick, who has directed the laboratory since 1942, was succeeded by Dr. G. E. Hilbert.

Dr. Hilbert's 15 years with the Department, 5 of which have been with the Northern Laboratory, give him an intimate knowledge of agricultural problems, particularly in the North Central States which are served by the laboratory. He also has had extensive training and experience in chemistry. Dr. Hilbert developed a method for the production of sirup and gluten from wheat flour, to help relieve the sugar shortage. More than 50,000,000 pounds of glucose sirup are being produced annually from wheat by this method.

Mr. Herrick's new position was created further to encourage the use of agricultural commodities in industry, and so that the Bureau Chief might have a staff member to act as liaison in keeping industry and agriculture in touch with the research accomplishments in the Bureau's various laboratories. Mr. Herrick started the fermentation work which expanded with the years until it rendered valuable aid in the early stages of the commercial development of penicillin. He is the author of numerous articles on fermentation and the industrial utilization of farm commodities.

Gifted speaker

IT WOULD BE impossible here to give any satisfactory digest of the wise, witty, and engrossing talk made before the USDA Training Council at the luncheon on January 24, by Dr. E. C. Elliott, recently "turned out to grass for having lived too long," as he expressed it, from the presidency of Purdue. He spoke on improvement in supervision. May we endeavor to suggest the nutritive character and aromatic flavor of his raisin-clustered rice pudding by quoting the following few of the many enlightening epigrams to which he gave vent?

An executive has nothing to do, except decide what should be done, then find someone to do it, and then listen to reasons why it should not be done.

A gentleman has more respect for the feelings of others than for his own rights and more respect for the rights of others than for his own feelings.

A man paid $500 a month for what he knows should not tend to get too exacting of a girl paid $50 a month for what she knows.

The human mind changes more slowly than the things it seeks to control.

Many stenographers and secretaries not only lack acquaintance with the English language but even refuse to shake hands with a comma when they are properly introduced.

Supervision is the art of enabling people a great deal better than you are to do better work.

The function of an executive assistant is to be caddy of ideas for his boss, always handing him the right club at the opportune moment.

Culture and agriculture

R. E. MOORE, of the Office of Foreign Agricultural Relations, speaking a short while ago before El Club de las Americas, of Washington, demonstrated how much of our American culture is rooted in agriculture. He observed that a New Jersey farmer, at the turn of the nineteenth century, invented the modern wagon wheel from a description he found in Homer. When credit was claimed for a farmer in a foreign land, Thomas Jefferson pointed out that the American farmers were the only farmers who could read Homer!

Nearly half the signers of the Declaration of Independence were college graduates, most of them farmers. Jefferson, besides being a farmer and a statesman, was also a fine musician, a gifted architect, a mathematician, a naturalist, an astronomer, and a physicist. Washington Irving, though urban, absorbed rural folk tales of European origin and perpetuated them in enchanting style and American locale. James Fenimore Cooper

was a New York farmer who wrote his first novel on his farm in spare time.

John James Audubon, the French son of a wealthy West Indian merchant, settled in Pennsylvania and was a farmer, a peddler, a river bargeman, a trapper, and a trader, as well as an ornithologist, a writer, and a painter. Henry Clay, idol of frontier Kentucky, was a farmer turned statesman who had great faith in the future of Spanish and Portuguese colonies in Central and South America. So culture and agriculture intermingled continually in early American life.

Science for Democracy

WARD SHEPARD, a Department of Interior soil conservationist, has some stimulating things to say under this title in Science (January 18), which, by the way, changed its dress with the first issue of 1946 and is more attractive in appearance as a result. Shepard speaks quite critically of Science, the Endless Frontier, and the program embodied therein. He declares it lacking in a spirit of partnership between scientists and the people of America.

He argues against the thesis that the least government is necessarily the best government, and seeks to lay what he calls the "well-worn bogeyman of government intervention." He declares that agriculture as well as formal science has an immense stake in the wise social application of technology. He insists that far too little attention has been given the fundamental social sciences "from psychology and economics to law and administration, that pertain directly to organized society."

The relatively youthful social sciences possess, it is true, a certain immaturity, but they are fundamental to the organization of any sound society. If science is to make sense in relation to human life, the natural and social sciences must reinforce one another in genuine partnership, "for the natural sciences can function fully only as society is effectively organized."

Shepard also writes:

> The full use of science, including social science, is indispensable for intelligent progress in all the great tangle of human problems that so compellingly confront modern government—for example, to cite only a few of them, full production and employment, social security, labor relations, race relations, public administration, public employment and relief, industrial monopolies, universal medical facilities, agricultural policy, the conservation of natural resources, regional development, the cause and cure of war, and the international allocation of raw materials and credit.
>
> At the best, without the full use of science, the vital decisions of government will have to be based largely on the inspired hunches of statesmen and administrators; at the worst, on the quackery and factionalism of demagogues, supported by pressure groups . . . Science can become the most important tool for democratic reorganization, but not if it remains half-heartedly used and socially irresponsible, and not if leading scientists sow distrust of government and remain squeamishly aloof from it.

Retirement facts

HERE ARE SOME retirement facts you may not know. It is possible for you to retire at age 55 after 30 years of service, but in so doing you sacrifice about a third of your pension. If, for example, you would get $3,000 a year at age 60 after 35 years of service, you would get only about $2,000 at 55 with 30. If you die in service, your beneficiary gets only the accumulated sum in your retirement fund, plus interest, paid in a lump. To find out what that would be, ask your personnel officer.

At 60, with 35 years of service, you will get a pension amounting to half your average salary for your top 5 years. Assume that is $3,000. You can, if you wish, elect to take *about* $2,650 a year (all figures are but close approximations), then, upon your death, your beneficiary would get $1,325 a year the rest of her—or his—life. If you took a cut-back to about $2,400 a year, then, after your death, she would get exactly the same, $200 monthly, for the rest of her life. But if she inconsiderately dies before you do, you are stuck with the smaller pension the remainder of your life.

This is all on the assumption that your beneficiary is about your own age. Furthermore, your beneficiary in this joint-survivorship affair (winner-take-what's-left) may be any "natural person," a legal way of ruling out corporations, whether related to you or not.

But note this carefully: If you fail to be so prudent as to live 30 days after your retirement and have elected a joint-survivorship plan, you will be considered to have died in service, and your beneficiary will get only the lump sum, plus interest, in your retirement fund at the time. So, if you want your beneficiary to enjoy an annuity, take precautions to see that you survive that 30 days. It might be a good idea for you to rent a hospital bed and remain under medical care that month.

Any more questions? The editor of *USDA* can't answer them, but he knows the man who has the answers and will relay your queries to him.

Private life of an apple

WHAT DO you think an apple or an orange does as it lies around your kitchen—sit and think? So long as it hasn't rotted, it pursues a private life of its own. It respires. It gives forth volatile matter, and the organic vapors arising from apples are directly responsible for the development of apple scald. If these organic vapors could be measured quantitatively in the fall, possibly the occurrence of scald could be predicted for stored apples.

Incidentally, the most complete analysis of the odorous constituents arising from apples was made in 1920, by a cherished friend of the editor, V. K. Chesnut, and his distinguished associate in the old Bureau of Chemistry, F. B. Power. Both have been dead for some time.

Franklin Wallburg Southwick, of the New York (Cornell) Experiment Station, has recently addressed himself to this problem, with helpful results. Southwick found that the temperature at which apples were stored determined their production of volatile matter. When removed from cold storage and held at 74° F., they emitted more organic vapors in 1 day than they had during the previous 5 months of storage. In an atmosphere containing 5 percent carbon dioxide and 2 percent oxygen, they respired and produced volatiles at a much slower rate than if stored in air. Activated charcoal, when treated with bromine, was found best for removing all known organic apple emanations. Commercial trials remain to be made.

Scientists Haller, Rose, Lutz, and Harding, of the Bureau of Plant Industry, Soils, and Agricultural Engineering, have studied the private life of oranges, lemons, and grapefruit, measuring the carbon dioxide they gave off and the oxygen they consumed—for they breathe something like human beings. Their respiratory rates increased greatly with increased temperature. The respiratory activity of oranges and lemons decreased with advancing maturity; that of grapefruit from trees sprayed with lead arsenate was lower than that of such fruit from nonsprayed trees. The addition of ethylene to the air greatly increased the rate. The heat of respiration of oranges varied from 427 to 979 British thermal units per ton per day at 32° F., but increased to 22,660 B. t. u. at 100° F. Obviously citrus fruit get all "het" up about breathing.

For your information, we have been reading October issues of the Journal of Agricultural Research.

"Grey monotony"

THE FOLLOWING item from the pen (or typewriter) of an individual who signs himself Polycritic, in the New Statesman and Nation, for November 17, 1945, seems to cry out for quotation in full. It tells more about the day-to-day postwar diet of the British than would many books.

A doctor friend said to me the other day: "I've had to stop putting American magazines in my waiting-room. Their technicolor food advertisements upset my patients, whose food is so monochromatic." And that is as profound an observation as any in the current newspaper debate between doctors as to whether we, as a nation, are undernourished. What the eye sees, the stomach grieves about. The grey monotony of sausage-meat in all its unconvincing disguises is a considerable factor in making us feel that our diet is inadequate. Intellectually, we can accept the assurances of Prof. Marrack, Lord Horder, and others that our rations are giving us enough calories and vitamins to keep the engine running and the level of health steady; but gastronomically we still have rumbling doubts.

According to the News Chronicle Gallup Poll, that goes for half the population; they *feel* that they do not have enough to eat. The fact is, we are jaded by 6 years of war and our tempers are frayed, and what we need is the "beano" which we can't have, an appetising meal and what goes with it. One thing that is noticeable is the sugar-hunger among one's grown-up friends. They want chocolate and sweets, perhaps in compensation for the spirits they used to have as a "bracer" after a tiring day. We take such comfort as we may from the data of the experts, but the best authority is still that eminent physiologist, Miss Marie Lloyd, with her "A little of what yer fancies does yer good."

Brief but important

More space: By reluctantly dispensing with practically our entire last-page masthead we have squeezed the final inches of space out of *USDA* for items of employee interest. Moreover, we believe you would rather read such items in each issue than look over the same old list of names.

Important Recent Achievements of Department of Agriculture Scientists: Our *USDA* document No. 6, bearing this title, has been revised as of January 15. We hope finally so to calculate things as to get it out semiannually on January 1 and July 1, but have so far been unable to achieve it. To get copies, *write to Editor of USDA*, Office of Information, USDA, remembering supplies are limited and that orders for six copies or more can be filled only in cases of urgent need.

Denver USDA Club: Secretary Anderson addressed this club January 28 wittily and informatively. The club ably did its part by mimeographing the talk and other items about club activities, officers, and attendance, and getting these out promptly to all members. This is a nice job and brightened Dr. Drahcim's life (Office of Personnel, where USDA clubs head up) notably.

REA back: By January 15 the Rural Electrification Administration had completed its removal from St. Louis to Washington. It had been in St. Louis for 44 months, leaving the capital to make room for war agencies which could not operate away from Washington and were rapidly expanding. Its 650 headquarters employees and office equipment are now housed for the first time in its history in USDA buildings, for its first home was a brick residence in Washington and its second, after joining USDA, the Longfellow Building on Connecticut Ave. in Washington. During the removal 157 employees, mostly clerical, resigned or transferred to other positions in St. Louis.

Rural people and radio: The Press Service has copies of a 130-page Nation-wide survey of the reaction of farm and small-town people to radio. It was prepared by the Bureau of Agricultural Economics. Differences in income, education, and age have little effect on the desire to listen to the radio as a source of news, information, and entertainment. Farm people generally like the more serious programs best—news and market reports, religious programs of all kinds, farm talks, old-time music. Daytime serials and dance music tend to be unpopular, and classical music is disliked in the main because it is not understood.

MP 550: Nature (London) for October 13 last carried more than a page and a half of rather flattering comment upon and exposition on the contents of this publication, Family Food Consumption in the United States.

"Hybrid mealie": "Revolution in Maize Cultivation," we read in The Farmer and Home Companion of Maritzburg, South Africa, issue of December 21, 1945. It develops that this "hybrid mealie" (hybrid corn to you) gives greater production per acre, improved nutritional value, uniformity of growth and yield, lower labor costs, more valuable byproducts, and higher cash income. The story is again told of how Lester Ffister of El Paso, Ill., accumulated a $35,000 debt while endlessly crossing strains of corn, to the laughter of his neighbors. But it's a billion dollar business now. The story is based on Kurt Steel's article in Harper's Magazine a few months back.

Fellmongering: How many in the class know what this agricultural vocation really is? To quote a British publication: "The handling of sheep after flaying, and the separation of the wool from the pelt, are the tasks of the fellmonger, who in many cases is carrying out his work today by the same methods as those employed by his ancestors hundreds of years ago." It won't be long now, though, for scientific research has invaded fellmongering; see Bulletin 184, issued by the Council for Scientific and Industrial Research of Australia, which appeared in Melbourne during 1945. Learn how to sweat wool off a hide and other useful parlor tricks. If you must know, an atypical (unlike the type) strain of *Proteus vulgaris*, unoriginally designated as No. 7, loosens the wool while the sheepskins hang in a warm moist atmosphere.

Frozen fruit products. Frozen-fruit puree has been developed by the Western Regional Research Laboratory as a means of utilizing fully ripe fruit that cannot be shipped or handled in the fresh-fruit market. It can be made from any fully ripe, raw fruit that has a decided flavor. Its manufacture makes possible the maximum utilization of a fruit crop for food, since fruit that cannot be marketed fresh, because of overbundance, can be converted into frozen puree (if internally sound and full flavored) and kept in frozen storage for future use. Frozen-fruit purees serve as flavor bases for ice creams, sherbets, ices, and beverages, and they are also suitable for the manufacture of Velva Fruit frozen dessert and frozen jellied fruit. The two products last mentioned, also developed by the Western Laboratory, are made from uncooked fruit juice or puree, with addition of sugar and a stabilizer-gelatin in the first and rapid-set citrus pectin in the second. Cantaloupe Velva Fruit offers the first successful opportunity for processing this product.

Plaque for Texas Sam: Forest rangers of the Cumberland National Forest in Kentucky are planning to erect a plaque at the Laurel Ranger Station to perpetuate the memory of one of their coworkers, the late Texas Sam. Texas Sam wasn't a human character from the big State, but a keen scented bloodhound, whose abilities in trailing a fire-setter helped the rangers catch up with many a lawbreaker. Last month death finally caught up with Texas Sam. The bloodhound had a notable record of apprehensions. His trailing once brought five court convictions in 2 days.

Iowa State College Agricultural Foundation: This foundation was formed at Iowa State to manage nine distressed farms given to the college by C. R. Musser, of Muscatine, in 1937. Since that time scientific management, applied to these farms, has increased crop production 60 percent, livestock output 554 percent, and profits 265 percent, with no increase in labor used. Read the details of what deficit farms can be made to do when the principles inculcated in a modern agricultural college are applied in practice. The story, by Francis A. Kutish, is in Iowa Farm Economist (published by Iowa State) for December.

Ulphian Carr Loftin: Mr. Loftin, for the past 15 years assistant head of the Division of Cotton Insect Investigations, Bureau of Entomology and Plant Quarantine, died January 16 at his home in Washington. He was born in Mount Olive, N. C., and held degrees from North Carolina State College and the University of Florida. After 8 years of research on cotton and sugarcane insects for the USDA in Louisiana and Texas, he spent a few years in Mexico and Cuba, and in 1931 came to the Department in Washington.

Maine reports: Picking potatoes by machinery is just around the corner. Last fall three machines of local invention were tried out in Aroostook County. All had their failings, but all also had their possibilities. When mechanical potato pickers come into general use, smaller crews will be required in the potato fields at harvestime.

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USDA

FOR MARCH 18, 1946

Personnel reconversion

PRESIDENT TRUMAN called together the heads of Federal Departments and agencies on February 9, to get into effect the Executive order of February 4 and Civil Service Regulations changing from war-service to permanent, competitive civil-service methods of recruiting, examining, and appointing personnel to Federal jobs. Secretary Anderson and Director of Personnel Reid attended from the USDA.

The President said personnel "makes the clock tick" and emphasized the value of good personnel administration. He said the purpose of the order is to decentralize personnel activities and give the Departments greater latitude in examination and selection of employees, and asked for full cooperation and coordination in carrying out its aims. R. R. Zimmerman, Administrative Assistant to the President, and Arthur Flemming, Civil Service Comissioner, outlined the order in more detail.

The Civil Service Commission and the Federal agencies are using their combined resources to effect this reconversion as quickly as possible. Veterans must be permitted to compete for permanent Federal employment at the earliest possible date.

Today there exist no competitive classified civil-service registers for Federal employment. CSC is preparing to hold examinations for positions now filled by war-service appointees where need for personnel is urgent. It will do the entire job of recruitment, examination, setting up registers of eligibles, and certifying candidates for appointment to positions common to most Federal agencies—stenographer and typist, for example.

It is expected that boards of examiners and committees of experts will be established to aid in filling scientific and professional vacancies and others common to only one or a few agencies. The boards, composed of departmental officers or employees, would be under the direction and supervision of CSC in establishing standards, rating papers, and setting up lists of eligibles. Certifying candidates for appointment under existing regulations as to veterans' preference and the apportionment act will be a departmental responsibility.

Pending establishment of civil-service registers, Federal agencies have been delegated authority to do their own recruiting and appointing, pending examination, with due regard for veterans' preference. Persons so appointed must ultimately meet CSC standards. They will have the same tenure as war-service appointees, both having finally to take examinations and to be certified from a list of eligibles under customary regulations.

Publications Workshop

EXTENSION SERVICE and the College of Agriculture of the University of Connecticut joined forces in holding an effective Publications Workshop at Storrs, January 30–February 1. Representatives were present also from several of the other New England States and from New Jersey. Vice Extension Director Clapp opened the workshop, and Mrs. Laurel Sabrosky, of Ext., defined its objectives and operations. Thereafter Dr. Irving Lorge, of Columbia Teachers College, spoke most informatively on the Psychology of the Adult.

Dr. Lorge showed conclusively that, while the speed of learning declines somewhat with age, the power to learn does not. But he remarked that, as we grow older, we are disinclined to undertake the onerous job of learning and thinking, and are inclined to develop mental clichés and facile stereotypes which we tend to keep unchanged. We begin to imagine that it is more difficult for us to learn than when we were younger, though tests prove that middle-aged people definitely do learn better than those of 14 to 16 and as well as those aged 17 to 19.

Finally, Dr. Lorge had many instructive things to say about the way in which our preconceptions can lead us to appraise tasks poorly, while it is possible for us not only to perform many obnoxious tasks—handle snakes, for instance—but to grow to like them. A feeling of achievement, however, is always of the utmost importance in the avoidance of frustration, dissatisfaction, and apathy.

Other speakers stressed the average educational levels of rural people, news writing, typography, lay-out, design, and the translation of research into readable accounts thereof. Dr. Rudolph Flesch outlined his very practical theories of readability and readability analysis, and Dr. George Gallup spoke on Measuring the Effectiveness of Extension Service Bulletins.

Real work was done by the workshop groups. Frank Atwood led the group on writing news stories and Walter Stemmons (both of Univ. Conn.) the group studying circular letters, on which Anna J. Holman (Ext.) spoke earlier. Other group leaders and groups were: Dr. Flesch, for bulletins; Harry P. Mileham (Ext.) for typography, lay-out, and design; Mrs. Sabrosky (Ext.) for evaluation; and Mrs. Nellie von Dorster (Ext.) for readability formulas. A great deal of definite accomplishment resulted. This interest in better writing, which now actively affects all agencies in the field of agriculture, is a highly beneficial thing.

The Editor of *USDA* has a few extra copies of the talk he gave on Translating Agricultural Research Into Readable Newswriting, in case any of you want to write in for one.

"Man of earth"

IN THE January 7 issue of *USDA*, under the title "Man of earth," reference was made to a Virginia farmer who said that the Government had given him a car. Additional information since that time indicates the farmer could not have bought a car "free for nothing" with the assistance received for conservation practices carried out on his farm.

The opinion has also been expressed, by those who knew him well during the time he served on the county AAA committee, that he did a tremendous amount of work for the program, much of which was at his own expense in time and

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money. Anyway, he contributed to the success of the AAA program of his county in a big way and is doing a good conservation job on his farm.

Campbell honored

IN RECOGNITION of 40 years of service to the Negro farmers of the South, T. M. Campbell, Extension Service field agent, was honored recently in a testimonial observance at Tuskegee Institute, which was climaxed with the unveiling of a bust of Mr. Campbell. Assistant Director of Extension H. H. Williamson represented the Department at the ceremony.

Campbell began working for the Department in 1906 as the conductor of a "wagon" school designed by Dr. George Washington Carver. With this wagon and a few tools for demonstration purposes, Campbell carried improved farming methods right to the doors of thousands of Alabama colored farmers.

Since the 1920's, Campbell has been serving as a regional field agent of Ext. He advises with State directors and Negro State and county agents in seven Southern States. In 1944, he was loaned to the General Education Board to visit West Africa with an educational research mission.—SHERMAN BRISCOE, INF.

Tung in cheek

DR. H. L. CRANE, of the Plant Industry Station, Beltsville, Md., who directs the investigations on the growing of tung trees, tells of a party of visitors to the station who were inspecting small tung trees grown in crocks in the greenhouse in connection with nutritional studies of the plant. These are grown in sand, and the food is supplied in liquid form so that it is easy to add or omit certain minerals and other substances, and note the results. Leaf analysis permits the application of such results to tung orchards. As the visitors were leaving, one woman pointed to the drainage tubes extending below the crocks and asked, "What are those?" Her companion, completely sure of her knowledge, answered readily, "That's where they drain off the tung oil."

It really isn't that simple. Tung oil is obtained from the kernels of the dried fruit that ordinarily mature and drop from the trees in October. The nuts are allowed to dry somewhat on the ground and are then collected and dried further to a moisture content of perhaps 12 percent, to insure good milling. There are now about a dozen tung-oil mills operating in the South, and annual production is worth 2 to 4 million dollars, which means that we have come a long way since 1904, when Consul General Wilcox obtained for us the first tung seed used in our experiments.

Interest was then aroused in tung oil, which had been used for centuries in China. Already we are finding it extremely valuable in the manufacture of such things as waterproof varnishes and paints, paint dryers, linoleum, and the like. We used to import around 100 million pounds a year, so with the reduction or shutting off of imports, domestic production becomes quite important. Tung growing is at present confined to Georgia, Alabama, Florida, Louisiana, and Mississippi, our preliminary tests having indicated that the trees seem adapted to an area about 150 miles wide extending across the Gulf States and southern Georgia, and south in Florida to the area around Gainesville. Under Dr. Crane we have field stations and laboratories at Bogalusa, La., Fairhope, Ala., Cairo, Ga., and Gainesville, Fla., in addition to the work at Beltsville. Each station has been planned and located to investigate some special phase of the industry.

The real problem just now is to safeguard prospective growers against exploitation by get-rich-quick promoters. The industry has a real future, but profits are not apt to be large; more likely they will be low compared to those from many orchard crops.—JOHN A. FERRALL, PISAE.

Ernest Kelly

ERNEST KELLY, assistant to the Chief of the Bureau of Dairy Industry, retired December 31, 1945, after more than 35 years of service, most of it devoted to scientific studies relating to milk sanitation and to the development of production practices and educational programs for improving the wholesomeness of the Nation's milk supply. Kelly served as an official in various dairy associations, wrote many popular and technical bulletins on dairy problems, and is the senior author of a standard textbook on market milk. He helped develop much of the research information that has been applied to the sanitary production of milk on the farm and in the factory.

Kelly was born in Washington, D. C., and obtained his scientific training and education at Cornell University. In 1910 he began his career in the USDA. During the 30 years or more that Kelly was in charge of the Division of Market Milk Investigations, many of the basic essentials of dairy sanitation were worked out and established in general practice in the industry. This division conceived and carried out the first experiments which proved that feed flavors are carried through the blood stream in the body of the cow and into the milk, and that this is a more important cause of strong feed flavors in milk than their absorption from the air.

Kelly also initiated and directed the first comprehensive study of the basic requirements for milk production in terms of feed and hours of labor. The results of the study, made in seven States more than 25 years ago, can still be used by applying present prices of feed and labor to the basic figures for the locality.

Farm electric equipment

NOT SO MANY years ago manufacturers didn't make much electrical equipment for farmers. Of course, some farmers had electric lights and a few household appliances. But that didn't help raise produce, gather crops, store foods, or do a thousand other jobs a farmer has to do every day. Since then, however, two things have happened to interest manufacturers in making electrical equipment for farmers.

First, many more farmers have electricity on their farms. Ten years ago there were only 750,000 electrified farms. Today, nearly 3,000,000 farms, or almost half the farms in America, have electricity. Second, electricity became a tool of production during the war, and its use on the farm became increasingly important as the farm-labor supply dwindled. Very little equipment could be made at that time, but manufacturers studied all potential markets. Farm electrical equipment was one in which they were very interested.

To help manufacturers design suitable equipment for profitable use on the electrified farm, the Rural Electrification Administration has assembled knowledge for their use from every available source. For example, a survey was made of agricultural-engineering departments of land-grant colleges and experiment stations, which have conducted considerable research on the use of electricity on farms. The purpose was to get the ideas of agricultural-engineering authorities as to needed developments in the manufacture of electrical farm equipment.

Some suggestions were: A farm-sized rice drier which would eliminate the necessity of the large storage facilities now necessary; an improved egg cooler; a continuous soil sterilizer; an improved electric motor; a device to meter different feeds into a feed grinder; and a portable electric elevator to handle ear corn, baled hay, and small grain.

In addition to this survey, REA engineers have engaged directly in research in the use of electrically operated hay driers and other equipment. From information assembled from various sources, they have written functional specifications for farm freezers and other types of farm equipment expected to be much in demand on electrified farms. These specifications, now available to manufacturers, serve as a guide for constructing farm electrical equipment both that farmers are known to want and that agricultural-engineering authorities think they could use advantageously.

Farmers and FCA

FARMERS and their cooperative associations used more than a billion dollars in credit extended by the Farm Credit Administration in the year ended December 31, 1945. "The year was marked by a big demand for production credit, by continuing large repayments on the principal of farm mortgage loans, and by the largest volume of farm mortgage loans closed since 1936," said FCA Governor Duggan. Financing crop and livestock production accounted for the biggest volume of FCA loans in the year, totaling $617,204,790. The largest amount of this financing was through the Nation-wide system of production credit associations.

Farmers' buying, selling, and servicing cooperatives obtained $361,915,040 in credit from FCA. Of this amount, the 13 banks for cooperatives extended credit totaling $361,255,040 and the Agricultural Marketing Act Revolving Fund $660,000. The 12 Federal land banks and the local national farm loan associations handled 41,909 long-term farm mortgage loans totaling $122,448,397 made for the land banks and the Federal Farm Mortgage Corporation.

"Despite this large volume of new farm mortgages written, repayments on loans made in prior years, totaling $349,110,210, reduced the FCA's volume of outstanding farm mortgage loans to $1,255,984,000," Mr. Duggan said. ". . . It is now the lowest in 30 years . . ." Loans to veterans and those still in the service were given major attention in the year and accounted for $2,424,525 in long-term farm mortgage loans, and $5,646,180 in production credit association loans in the year.

Guar!

WE ARE NOT trying to scare anybody and our digestion has been excellent lately, but it seems that something should be said about *Cyamopsis tetrogonolobus*, since Charlie Gapen, of the Plant Industry Station, and E. R. McIntyre, of the Office of Information, not to mention the Arizona Farmer, brought up the subject. This plant is a native of India, where they call it guar for short. It was introduced in the United States in 1903, and has had limited use as a manure crop, though recently the possibility of making mucilage from its seed has been investigated.

Guar is a drought-tolerant legume, grown in India for the pods and seed which are used for food and for the fodder which is fed to livestock. It is sometimes called the cluster bean. It takes 5 months for the seed to mature, there are 20,000 seeds to the pound, and a bushel of them weighs 60 pounds. But the seeds are flinty and hard to germinate, so the Arizona vegetable growers are going back to Sesbania—*Sesbania*, that is! And that's not a joke, it's an herb, a shrub, or a tree.

Water-for-West McLaughlin

AFTER spending 42 years at the unique and at times tempestuous business of getting water where water is most needed, Walter W. McLaughlin retired from active duty with the Department February 1. For 21 of those years, he was Chief of the Division of Irrigation, now a part of the Soil Conservation Service. His was the job of planning and directing all research activities of the Service relating to irrigation and water conservation in the 17 Western States. In addition, he served as technical adviser to the International Boundary Commission, dealing with the use of waters of international streams for irrigation.

Snow surveying was a chief interest of this scientist for many years. In 1940, Mr. McLaughlin was awarded the John Deere Medal for "distinguished achievement in the application of science to the soil." He has been appointed a collaborator and will continue to provide Agriculture with consultant services. Dean George D. Clyde, of Utah State Agricultural College, succeeds Mr. McLaughlin as Chief of the Division.—P. O'N. FARIS, SCS.

Kitchen resigns

RESIGNATION of C. W. Kitchen as assistant administrator of the Production and Marketing Administration was effective February 21. After 34 years with the Department, Mr. Kitchen became executive vice president of the United Fresh Fruit and Vegetable Association, with headquarters in Washington.

Commenting on Mr. Kitchen's resignation, Secretary Anderson said: "The Department of Agriculture is losing a fine, capable public official. During his more than 30 years of service, C. W. Kitchen has contributed perhaps more than any other single individual to basic improvements in the distribution and marketing of farm products in this country . . ."

Mr. Kitchen has held various responsible positions in the Department, all associated with marketing problems. He has had a leading part in the establishment and development of market news work, standards and inspection service, regulatory provisions, and various other research and service programs which have brought increased economies and efficiencies in marketing agricultural products.

Kilimandscharicum

THE CONTINUED search of the plant kingdom for products of commercial importance has yielded as a somewhat recent dividend the hope that camphor may be produced in this country, *in one season*, as a farm crop. Japan has long been the sole source of this important product, obtained by distillation of the wood and leaves of the camphor tree, which requires years to come into production. Synthetic camphor made from turpentine—a forest product—now meets many industrial needs, however.

The plant that has aroused hope for a single-season crop is a species of mint, camphor basil (*Ocimum kilimandscharicum* Guerke) from East Africa. Its possibilities have been investigated by M. S. Lowman and J. W. Kelly, Bureau of Plant Industry, Soils, and Agricultural Engineering. Tests in Virginia and

Maryland indicate that the fresh herb yields 0.4 to 0.8 percent of an essential oil containing from 50 to 70 percent camphor. Yields of 15,000 to 40,000 pounds of fresh herbs per acre have been obtained, representing an average yield of about a hundred pounds of camphor. At this rate, 10,000 to 20,000 acres would replace the amount of camphor imported before the war from Japan.

The growing of camphor basil is, of course, not yet an established industry in the United States. Crop production should not be attempted unless some definite arrangement can be made with a commercial concern desiring to utilize the oil or crop. Experiments are being continued to develop desirable, high-yielding strains of the plant and to determine the soil and climatic conditions most favorable for its growth.—JOHN A. FERRALL, PISAE.

Brief but important

What We Owe to Good Breeding: The American Journal of Pharmacy for October 1945 (delayed at the printer's and just out) contains an article, under this title, on agricultural plant and animal breeding research, authored by *USDA's* Editor, who has a *few* separates to send on request.

USDA records: If you are interested in Department history, you will find much useful material in an article entitled "The General Records of the United States Department of Agriculture in the National Archives," by Guy A. Lee, of the National Archives, which appeared in Agricultural History for October 1945.

Co-ops: Deputy Governor Wells, of Farm Credit Administration, told a group of USDA employees recently that Secretary Anderson's talk on Cooperatives and the Family Farm, delivered January 9 in Chicago, was the best presentation of the subject in recent years and that all should read it. Ask Press Service for 9–46.

Dr. Ross retires: William Horace Ross retired December 31, 1945, from the USDA after 34 years of research which contributed greatly to improvements in crop production, mostly through increasing knowledge of fertilizers, their sources, methods of production, conditioning, and application. Alone or with other scientists, he produced 135 scientific papers in his chosen field, which he selected for his career while yet a high-school student. Ross' work, for much of the time in the Bureau of Plant Industry, Soils, and Agricultural Engineering, resulted in these achievements: First production of phosphoric acid by the electric-furnace method; detection of boron toxicity in an American potash material; preparation of high-analysis fertilizers and economies in the use of these and double-strength fertilizers; control of reactions in mixed fertilizers; improvements in mixed fertilizers; recent leadership in conditioning ammonium nitrate, a surplus war explosive raw material, so as to make it acceptable in commerce and for use by the farmer. He not only helped the industry improve its products, but enabled farmers to buy these products at lower cost.

George Washington Carver Research Laboratory: This laboratory, at Tuskegee Institute, has received a grant of $5,400 from a packing company to continue experiments with the mung bean as a source of low-cost protein for poultry feeding. The mung bean is a native of the Orient, grown to some extent in Oklahoma, Indiana, California, and other States. It is used in chow mein and also as a feed for birds. In some sections of the Southwest, the crop is turned under as a soil improver. Dr. Russell Brown, director of the Carver laboratory and experiment station, says the mung bean offers definite promise as a low-cost poultry feed to help the South compete more successfully with commercial poultry producers in other sections.

India engineers at REA: Three electrical engineers from India, O. P. Bhasin, R. Ramakrishna, and P. Pappu, recently began a 3-week study of the Rural Electrification Administration. Their visit in this country is sponsored by the British Embassy, to gather information for use in planning widespread development of electric power facilities in India. After studying administrative phases of the REA program in the various divisions, the engineers will visit six REA-financed rural electric cooperatives for field studies. Subsequently two of them will go to the Pacific Northwest to see the power developments in that section.

DeWitt C. Wing: Mr. Wing, former farm paper liaison for USDA, has accepted the position of information director for the Aberdeen-Angus Breeders' Association, Chicago. He was with the Department from 1933 to 1944, inclusive.

Bug Bombardier: This is the title of a story about Dr. Lyle Goodhue, of the Bureau of Entomology and Plant Quarantine, to be found in Coronet for March and recommended for your attention.

Jellied mixed fruit dessert: Requested by the Army to produce a fruit dessert capable of satisfying a soldier's appetite and also of contributing vitamin C to his diet, the Western Regional Research Laboratory responded with a product containing 60 percent of fruit and 40 of fruit juice jellied with pectin. It keeps well in all climates, is easy to carry, and can be opened and eaten out of hand without dripping juice. The Army ordered 25 million cans and used 10 million in the first three months of 1945. Both the pineapple variety and the one containing diced peaches, pears, cherries, pineapple, white grapes, and apricots are popular.

The Piñon: You will find a fascinating article under this title, by Elizabeth G. Maguire, in February Agriculture in the Americas, a publication of the Office of Foreign Agricultural Relations. While you are at it, look up the article on agricultural extension work in the other Americas, by Dorothy E. Chapman, and the account of Puerto Rican cinchona investigations by Harper and Winters. Then go ahead and read the remainder of the issue. It's all good.

The Book of the States, 1945–46: This book, which goes to governors and top officials in State government, features an article by Extension Director M. L. Wilson, captioned "State-Federal Cooperation in Agricultural Extension Programs." In it Wilson stresses the grass-roots nature of Extension work and traces the long-time relationship between USDA and State land-grant colleges in carrying on educational programs for agriculture. The article telescopes into a few pages some of the basic information every USDA worker should have about Extension Service.

The 80-percent loaf: For a long time we have been removing the outer coat of the wheat berry—and, along with it, seven-eighths of the thiamin and niacin, three-fourths of the riboflavin, four-fifths of the iron, and some calcium, phosphorus, and high-quality protein—to make flour white and fine, and of good keeping quality. Under War Food Order No. 1 we have enriched 65 percent of our flour and flour products by adding thiamin, riboflavin, niacin, and iron. The 80-percent extraction flour as milled (we used 72 previously, Britain uses 85, and 100 percent is whole wheat flour), if *unenriched*, is not as high as our *enriched* white flour in respect to iron and parts of the B vitamin. However, the new flour and bread is subject to enrichment requirements, so it will be at least equal to our familiar white bread in food value. The loaf from 80-percent flour has a slightly creamy color and a slightly more wheaty flavor than that from the 72. Bread and the cereal grains contribute more than one-fourth of the energy value and protein in our national diet, though grain proteins must be supplemented with other high-quality protein foods such as meat, milk, and eggs to be complete nutritionally.

Meat supply: Secretary's Memorandum 1144, January 25, established a temporary Office of Government Representative for Meat Supply, under the immediate supervision and direction of the Secretary and headed by Gayle G. Armstrong as Government Representative. This was to facilitate carrying out responsibilities vested in the Secretary by Executive Order 9685, January 24, with reference to the possession and operation of certain plants, facilities, and property used in the production, processing, transportation, sale, or distribution of livestock, meat, and meat products and byproducts.

Unusual work hours: Memorandum P–551, from the Office of Personnel, dated November 26, 1945, carries attached a compilation of deviations from the regular administrative work week of five 8-hour days, Monday through Friday, in USDA. The tabulation shows the projects where unusual service is required, location, number of employees involved, days of the week on which they work, number of hours worked per day, and total hours per week.

New GS course: The Graduate School announces a special course, Work Measurement and Production Standards, beginning March 20 with 10 weekly 3-hour meetings. This course, never before offered in the Government, covers conventional industrial work measurement and production standards; identification of work units and work records now kept; effect of organization and management on standards. Directed by Ralph R. Shaw, Department Librarian, it includes lectures by these specialists: Harlow S. Person, Consultant in Business Economics and Management; Robert Hart and Mary Novick, Bureau of the Budget; Lt. Col. C. F. Mitchim, Army Service Forces; W. R. Miller, Transcontinental and Western Air; D. E. Clark and E. W. Loveridge, Forest Service.

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USDA

FOR APRIL 1, 1946

Emergency food office

AN Office of Emergency Food Program has been established in the Office of the Secretary, by Secretary's Memorandum 1156, March 19. Secretary Anderson named Walter F. Straub, of Chicago, Ill., director of the program. The new Office coordinates and generally directs all phases of the emergency food program, assists the Secretary in providing food for relief shipment abroad, and serves as a focal point in the Department for all activities of the program.

Mr. Straub, head of the W. F. Straub Co., manufacturers of food products and chemical specialties, was OPA Director of Food Rationing in 1943–44. In 1945 he was in enemy territory in Europe for the Army, surveying food plants and manufacturing methods. As Director of the Emergency Food Program, he works with USDA and other Federal agencies, with the President's Famine Emergency Committee, and with citizens' groups carrying on activities to stimulate public participation in the conservation of needed foods.

Famine fighters

THE USDA rapidly became an organization of famine fighters after the world food crisis was called to the attention of the Nation by the President. On one day, March 8, we found five press releases describing the fight. The first (482–46) urged a lower rate of livestock feeding, and subsidies and price ceilings have been adjusted to effect this. If critical human needs for grain are to be met and the danger of livestock liquidation avoided, farmers must immediately reduce prevailing high rates of livestock feeding.

The second (497–46) release noted a reduction in world hog numbers of 5 million head during 1945. But, because of the critical world shortage of grains, a further decline in hog numbers outside the U.S. was forecast in this in the face of a meat demand which exceeds the supply. This release is based on a report from the Office of Foreign Agricultural Relations which reviews the world hog situation.

The third (504–46) release told how representatives of the Nation's food industries, meeting at the Department, had unanimously emphasized the need for sharp reduction in food waste and increased use of foods in plentiful supply as alternates for those to be shipped abroad. Specific recommendations for the conservation of bread and wheat products, and fats and oils, had been drafted for presentation to the Famine Emergency Committee.

The fourth (509–46) release, based also on a report from FAR, noted that the world's 1945 wheat crop was the smallest since 1929 and 8 percent lower than in 1944. Below-average harvests occurred everywhere in 1945 except in North America and Asia, where production exceeded the average but was smaller than for 1944.

In the fifth (511–46) release Secretary Anderson announced designation of State and county emergency food-program managers, to help speed the job of supplying food under the President's famine relief program. State directors of the Production and Marketing Administration and chairmen of the county agricultural conservation committees will serve, enlisting the cooperation of State and county USDA Councils, made up of heads of Federal, State, and local agricultural agencies. The Department and the States thus mobilize to fight world famine.

You should do your part. If interested in the specific recommendations made by the Famine Emergency Committee for the conservation of wheat, wheat products, fats, and oils used in and for food, ask Press Service for 527–46 issued March 11. Here you will find detailed the 39 points in this program.

Wickard on REA co-ops

SPEAKING on The Responsibility of REA Cooperatives, at Charlotte, N. C., February 20, the Rural Electrification Administrator wound up thus:

"The record made by REA borrowers in paying off their REA loans is proof that the REA cooperatives are soundly managed. Today less than 1 percent of the amounts due on REA loans is delinquent more than 30 days. Nearly 20 millions of dollars of principal has been paid in advance of due date. This record has been made despite the wartime interruptions in construction and the wartime scarcity of electrical equipment. If we add to that record the kind of public service which involves doing all we can to make REA service available to every rural community that wants it, we will deserve and command the respect of our communities and of the Nation. The job has been laid out for all of us who are in the REA family. We must not fail."

For the full text, ask Press Service (phone 6114) for 372–46.

The Secretary—management

ON TWO occasions recently, Secretary Anderson demonstrated his personal interest in the Department's management by participating in meetings attended by members of the Washington staff primarily responsible for planning and carrying out the Department's programs. The first occasion was on January 30, when he addressed the Department's Organization and Procedure Conference. Two weeks later, on February 13, he met with the bureau key management representatives, who are responsible for carrying into effect the Department's Management Improvement and Manpower Utilization Program.

At these meetings the Secretary stressed the need for continuing analysis of our operations, recognition of employee interests, and necessity for remembering that we are responsible to 140 million people, of which a larger percentage than ever before are taxpayers. When a Cabinet member takes time from his many official affairs to meet with, and talk informally to, not only his immediate staff of bureau chiefs but others who share the management responsibility, you and I know that we have top-administrative endorsement and support for any action necessary to do our job more efficiently and economically.

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At the January 30 meeting A. James Martin, of the Office of Personnel and chairman of the conference, gave Department employees this thought: "The reputation of the Department *today* is based upon what others, before us, did *yesterday;* the Department's reputation *tomorrow,* for those who follow us, will be based upon what we do *today!*"

Honors for BDI

NINE Bureau of Dairy Industry research workers have each received a "certificate of appreciation" from the Quartermaster Subsistence Research and Development Laboratories, signed by Col. Rohland A. Isker, QMC. The certificate states it is "for meritorious service in research and development phases of the World War II food program of the Army. The staff presents this certificate to commemorate an association of immeasurable value in the performance of its mission."

The BDI recipients are George E. Holm, B. H. Webb, H. S. Haller, P. S. Schaffer, G. R. Greenbank, R. W. Bell, A. Leighton, E. F. Deysher, and P. A. Wright. They worked on problems relating to the causes and prevention of fat spoilage in dairy products and were successful in prolonging the keeping quality of evaporated milk, dried milks, dried ice-cream mix, and butter oil, through improved methods of preparation and packaging.

FSA eases vets' worries

THROUGH long months in far-away countries, many farm-minded servicemen dreamed of the day they could get back to the land, break the sod, and plant their own crop again. But they wondered and worried a little about their ability to use all the new agricultural methods stimulated by the war.

The dreams have come true, and doubts have faded, for more than 8,300 veterans are farming this spring with credit and counsel from the Farm Security Administration. County FSA workers are assisting these returned GI's in every way they can in making a smooth transition from military life to a farm operator's status, and they say the veterans are quickly catching up with the new practices.

Before any FSA loan is made, the local supervisor and veteran sit down together and write out a sound, practical plan for running the particular farm with best prospects for success. They talk about crop acreage, livestock and poultry feeding, soil-building measures to increase yields, marketing possibilities.

After the veteran has started farming, the supervisor calls from time to time to offer any advice he may need. During these visits, the farmer-veteran has opportunity to get up-to-date information and demonstrations of the most scientific methods. Also, he may call at the FSA office any time he wants to discuss a special problem.

Four hundred returned servicemen have bought family-type farms with long-term FSA loans, while 7,948 have obtained operating credit to buy the stock, machinery, tools, seed, and other items necessary to operate land they already owned or farms they are renting. Farm ownership loans to these veterans totaled $2,830,488 by February 1, and operating loans amounted to $12,327,592.—FRANCES HUNT, FSA.

Pan American Day

ON APRIL 14 the 21 Republics of the Americas will celebrate their sixteenth annual Pan American Day—the slogan being "Free and United, the Americas Go Forward." Since more than half the people of the Western Hemisphere depend on agriculture for a living, all Department people should be especially interested. Inter-American agricultural cooperation forms an important part of the Good Neighbor Policy.

Like our Founding Fathers, so also Latin America's leaders were sons of the soil. The great liberators, Simón Bolívar and José de San Martín, came from haciendas.

Five of the 21 Republics are wholly or mainly in the Temperate Zone—Argentina, Chile, Paraguay, Uruguay, and the U. S.; the remaining 16 are largely tropical or semitropical. Many agricultural products of Latin America are complementary to, rather than competitive with, our own.

Costa Rica, Ecuador, El Salvador, Guatemala, Nicaragua, and Peru have established agricultural experiment stations, the U. S. lending key personnel. Cooperative arrangements for similar work are in effect in Bolivia, Colombia, Cuba, Brazil, Dominican Republic, and Haiti. We also help train agricultural scientists, administrators, and educators from the other Republics. Extension Service, Soil Conservation Service, Rural Electrification Administration, and Bureau of Agricultural Economics have a hand in this training.

It is urged that special effort be put forth to make Pan American Day notable in 1946. A background fact sheet can be procured from Duncan Wall, Office of Foreign Agricultural Relations.

Co-ops overseas

TWO MISSIONS on one trip, first as a professor at the G. I. University at Florence, Italy, with the War Department, and then as an observer of cooperatives, were recently completed by Harry C. Hensley, Cooperative Research and Service Division, Farm Credit Administration.

After teaching agricultural marketing, cooperatives, and credit for three terms, Mr. Hensley called on cooperatives in Italy, France, Belgium, Holland, Denmark, Sweden, and Great Britain for FCA. His tour particularly concerned three points: (1) Possibilities for postwar markets for American cooperatives; (2) present status of cooperatives abroad; and (3) subsequent studies which might help co-ops in the United States.

Mr. Hensley reports a great many foreign cooperatives are doing good jobs. We here could profit from these jobs, particularly those of the consumer societies and dairy and bacon cooperatives. Since Mr. Hensley's return he has conferred in New York with officials of these foreign co-ops: Cooperative Wholesale Society of Great Britain, Scottish Cooperative Wholesale Society, and Kooperativa Forbundet of Sweden.

World food supply

THE STEADY increase in demands for food makes us more fully aware of the seriousness of a world food supply which is 12 percent below prewar levels and which in importing countries is much lower. In contrast, U. S. production is 30 percent higher than the prewar level. World food production seldom varies more than 5 percent from year to year and is usually augmented by carry-overs. But this time we had to use up stocks as we went along. Foodstuffs most needed are cereals, fats, oils, and sugar.

France estimated its wheat import needs at $1\frac{1}{2}$ million tons in September, but raised this figure to 2,760,000 tons in December. India has cut food rations 25 percent and it is doubtful it can meet even this reduced ration. Droughts in both India and South Africa have gravely affected food supplies. India's cereal-

crop estimate has been revised downward 9 million tons, comprising 12 to 13 percent of its entire food production. Here in the United States our expected January 1, 1946, wheat carry-over of 750 million bushels shrank to 689 million bushels. This is accounted for by our larger exports in the fourth quarter of 1945, a downward revision in the October 1 stocks report reflected in figures for the following quarter, and increased feeding of wheat by poultry and livestock producers.

To conserve our vanishing wheat stocks, USDA issued WFO 144 on wheat and flour to cut down use of wheat for livestock and poultry feed and to increase extraction of flour from wheat. Meanwhile, transportation shortages are hampering wheat for export. While civilian diets in this country will "continue to be very satisfactory," the world requirements we are trying to meet will not provide more than a minimum diet elsewhere.

Storrs, Conn.

HERE THE State Agricultural Experiment Station connected with the University of Connecticut carries on much poultry research. Here the International Poultry Contest has been carried on for 35 years. Groups of prize laying hens are sent in by dealers from all over the United States and some from abroad. Then, for 51 weeks of the year, they occupy little poultry houses and grimly try to make a record for laying. Commercial stock is judged and advertised on a basis of the test here, the dealers paying an entrance fee that covers expenses.

This, however, is a sort of routine activity, though highly important. H. M. Scott is head of the poultry department which, within the last 5 years, has been built up from nothing to a well-equipped research establishment, through grants from feed producers. At the moment Scott and his associates are busy studying "pullet's disease," a sort of hen gout and kidney trouble, which develops just as the chicks are becoming pullets, and is spreading rapidly among large commercial flocks in Connecticut.

Since the victims eat poorly, an effort was made to render their diet more palatable by adding molasses. However, that cured the disease. Subsequent work indicated that the addition of potassium salts to the diet, fed at the level present in molasses, would do the same thing. So such salts have been incorporated into commercial feeds to combat the ailment. Meanwhile, chance reading by the investigators disclosed that a pharmaceutical research worker had produced symptoms similar to those of pullet's disease by feeding pullets sodium citrate. So the disease can now be produced artificially, though its real cause and nature remain unknown.

Erwin Jungherr, head of the department of animal diseases, engages in continuous research to hold various poultry troubles at bay. He works cooperatively with the Bankhead-Jones Laboratory at Michigan State College on fowl paralysis. He works also on other diseases of chickens, especially a new one now spreading rapidly in New England supposedly from its point of origin in Newcastle, England, and called Newcastle disease.

Walter Landauer, head of the department of genetics, is doing interesting fundamental studies on incubation. He told how the ancient Egyptians incubated eggs thousands of years ago, using ovens heated by burning dried camel dung. An erroneous description of this process led to the incubation of eggs in Europe in fermenting manure piles, a practice which went on for years.

In his endeavor to control the metabolism of incubating eggs, Landauer drilled holes in the shells with a dental drill and inoculated the eggs with insulin. To his surprise, this completely destroyed the cells destined to develop into the chicken's tail, tail feathers, oil sac, and all. Tailless-variety chickens hatched. After a certain stage of incubation has been reached, however, insulin can no longer knock out the cells forming the tail.

Here Landauer has come upon a useful implement for the genetic control of incubating eggs. If he can find other chemicals with still other effects, a great deal can be learned about basic genetics. All in all, poultry research of high value is carried on there at Storrs.

How Much Can Farmers Produce in Peacetime? The thoughtful and conservative address delivered on this subject by H. R. Tolley, Chief of the Bureau of Agricultural Economics, at Des Moines, on February 18, merits study by those interested in long-term prospects for U. S. farm production. Ask Press Service for 313–46 or procure from BAE as you wish.

Latest on 2,4–D: It is impossible to give you the last word on this wonder weed killer because something new develops almost daily. But the latest is a mixture of 2,4–D, a fertilizer (urea), and a fungicide (fermate) for use as a spray to kill weeds, make the grass grow better, and exterminate fungi which attack grasses. The mixture seems to work. The ingredients do not interfere with the action of one another. The turf grows beautifully. The press release is 363–46.

"Cap" Winslow

CARLILE P. ("CAP") WINSLOW, director for 29 years of the Forest Products Laboratory at Madison, Wis., largest organization in the world devoted to research in the utilization of wood and related products, has relinquished the directorship to become Forest Service consultant on wood products with headquarters at Washington, D. C. George M. Hunt, a member of the laboratory staff since 1913, and assistant director since January 1944, has been named to succeed him.

Mr. Winslow successfully directed expansion of the work of the lab to meet the demands put upon it by World Wars I and II, in each of which the organization cooperated closely with the War and Navy Departments in solving vital problems in the manufacture, packaging, and transport of war materials, including airplanes, tanks, artillery, ammunition, and food. He recently returned from a 10-month special forest-products assignment in Europe under the joint Chiefs of Staff.

A member of the original staff when the laboratory was established in 1910, Mr. Winslow became director in April 1917. At that time, the Madison organization employed 80 scientists and other workers, as compared to 700 at the peak of its activities in connection with World War II. Mr. Winslow, a native of Washington, D. C., was graduated from Sheffield Scientific School, Yale, in 1905, with a Ph. B. degree in mechanical engineering. His first assignment in FS was "investigative work in the design, installation, and operation of experimental wood preservation plants."

Mr. Hunt was born at Salem, Oreg., and received his early education in the public schools there; in 1900 he entered Willamette University. His college progress was frequently interrupted, however, due to lack of funds. At various times he worked on farms, in mines, and at sawmills. In 1911 he graduated from the University of California with a B. S. degree. He entered FS as an assistant chemist at San Francisco in September of that year, and transferred to the Madison laboratory, in January 1914, in the wood preservation section. He is recognized both here and abroad as an authority on the preservation of wood by physical and chemical means, fireproofing, glue laminated construction, use of sawdust for molded products, glues and plywood, and wood finishes.

Brief but important

Points to spare: Back home again with what is believed to be one of the highest point totals of the war is Lt. C. J. Bill Harris, a fire suppression crew foreman for the Forest Service in California before he entered the Army in 1941. He had accumulated 299 points with 15 more pending. The aerial ace of the Thirteenth Air Force earned 21 Air Medals, the Presidential Unit Citation, 8 battle stars and numerous other honors during his 1,350 flying hours, 800 of which were combat time. According to Air Force Headquarters 29-year-old Bill cost the Japanese 16 planes, thousands of troops, 37 locomotives and several freight cars loaded with ammunition, and hundreds of tons of water shipping.

Extension international: Les Schlup, of Extension Service, would like wide reading of and comments upon an article in February Extension Service Review entitled "International Extension Service Takes Form." It is by Arthur L. Deering, Maine Agricultural Extension Service and chairman of the Committee on Extension Education, and the Exchange of Scientific and Technical Information at the FAO conference in Quebec, fall 1945.

Home gardening: Secretary's Memorandum 1150, February 26, announced the appointment of a Departmental Committee on Home Gardening, headed by Paul C. Stark, of Production and Marketing Administration, with H. W. Hochbaum, of Extension Service, as vice chairman.

Veterans and farm machinery: The Department has amended WFO 135 under which veterans may obtain farm machinery. The original order, effective June 25, 1945, provides that veterans who can show the need for and the inability to obtain farm machinery to establish or reestablish themselves in farming may obtain preference certificates that require dealers to give them priority. The amendment says a "veterans' preference certificate shall become void, unless presented to and accepted by a dealer within 15 days after the date of the issuance" by a County Agricultural Conservation Committee. No time limit for filing certificates was fixed in the original order.

For prospective farmers: Bureau of Agricultural Economics has issued an extremely readable and most informative little publication by A. B. Genung, entitled "If You're Thinking of a Little Place in the Country." Telling the story of four men who had this idea and not all of whom succeeded in making it work practically, the highly factual material is made as fascinating as fiction. Recommended for all veterans and others who wonder about the possibility of working at jobs in town while living in the country and deriving part of their income from fruit, truck, chickens, livestock, or other products produced on the land.

Bread thrift: Recommended ways to be thrifty with bread, based on material from specialists in the Bureau of Human Nutrition and Home Economics, should have the attention of all. Ask Press Service for 324–46.

Revised 1946 goals: On February 21 the Secretary asked American farmers to revise their 1946 goals. Specifically, a million more acres of wheat, a million more of corn in the Corn Belt, additional acreages of corn and grain sorghums elsewhere, 1,110,000 more acres of soybeans and 100,000 of smooth dry edible peas were requested. Some reduction in acreages of hay, rotation pasture, and oats, and greater utilization of land that would otherwise go fallow, will almost certainly occur.

Turner in Ontario: Ontario agricultural societies, in their annual meetings at Toronto during the week of February 11–16 heard Arthur W. Turner, Assistant Chief in charge of agricultural-engineering research in the Bureau of Plant Industry, Soils, and Agricultural Engineering. He made two addresses on recent developments in mechanized agriculture. In the first of these, Trends in Tractor Farming, he addressed 500 members of the Ontario Plowmen's Association and the Ontario Crop Improvement Association in joint assembly. He traced the development of farm mechanization during the last 50 years and told of new machines or devices, now in production or in the planning stage, which are likely to come into common use in the next few years. The second address featured a joint program for the 750 members of the men's and women's divisions of the Ontario Association of Agricultural Societies. In this talk Turner emphasized current research in the functional requirements of farm homes and various kinds of farm buildings and storages, with some attention to the effects of farm mechanization in the home.

1946 farm labor: USDA plans for utilizing farm labor to meet 1946 production goals include, in the following order: (1) All local sources; (2) sources within State; (3) sources within other States where labor surplus exists; and (4) as a last resort, foreign workers. Foreign labor employed in this country, as of March 1, included 4,744 Jamaicans, 3,870 Bahamians, 740 Newfoundlanders, and 18,858 Mexican Nationals (18,113 of these for work in Arizona, California, and Nevada).

Veterans' Advisory Committee: Secretary's Memorandum 1131, Supplement 1, February 14, appoints as members of this committee 9 Department employees who served in the armed forces in World Wars I and II. The majority were chosen from Department agencies employing the greatest number of veterans. Working under the Director of Personnel, the committee makes recommendations on policies and procedures affecting veterans. Members are Perkins Coville, K. V. Zahn, K. C. Sheiver, Clyde Johnson, Wingate E. Underhill, Robert J. Marquette, Thomas J. Pugliese, Philip Brown, and James C. Peterson.

Cotton study: The International Cotton Study Group, of which S. K. Kirpalani of India is chairman, on February 26 announced it had concluded its work with a report to its parent body, the International Cotton Advisory Committee—itself the outgrowth of an international meeting in Washington in 1939. For a digest of the report, ask Press Service to send you 416–46.

Food program review: Immediate re-examination of all USDA production, procurement, and distribution programs, as a result of the growing world food crisis, was directed by Secretary Anderson February 15.

National Home Demonstration Week: This will be May 5–12 and will feature the objectives and achievements of home demonstration work under the theme—Today's Home Builds Tomorrow's World.

Rumen vitamins: The average dried rumen (first stomach) contents of cattle, sheep, and goats contain four times as much riboflavin and pantothenic acid as growing chicks and breeding flocks need. This small pouch in front of the true stomach of ruminants is potentially rich in all B-complex vitamins. Paul R. Frey, of Colorado A. and M., has shown that dried rumen contents can be used effectively as vitamin supplements to poultry rations, instead of being processed for fertilizer as has been the custom.

Farmer's Stake in Atomic Developments: Division of Extension Information, Extension Service, informs us that it now has mimeographed copies of Dr. Mark Graubard's excellent talk under this title, delivered January 7 before the Annual Extension Institute, USDA. The editor of *USDA* also has a few copies for distribution.

Personnel recruitment: Secretary's Memorandum 1149, February 25, frowns on endeavors to obtain personnel from other agencies by offering grade advancements or other inducement and emphasizes the importance of advancing qualified USDA personnel by preference, though it does not preclude discussion of positions with prospective appointees who initiate it.

Share your car: Secretary's Memorandum 1148, February 15, says though the war is over, some wartime practices such as the share-your-car and automobile-pooling programs can be continued profitably in peacetime. Return of the decentralized agencies has increased the number of employees in Washington buildings, and few official parking spaces are available. The Office of Personnel will continue to act as a clearing house for all kinds of cooperative driving arrangements: Room 343-W, phone 3105 or 3106.

Science and the United Nations: Apropos of the proposed UN Educational and Cultural Organization, you might like to read an article by this title in Nature (London) for November 10, 1945, by Julian Huxley. Other articles are World Cooperation in Science, A Permanent International Scientific Commission, and The Place of Science and International Science Cooperation in Post-War World Organization. The Library gets this periodical.

New Orleans tree memorial: Sarine Mullins, of the New Orleans office of the PMA Compliance and Investigation Branch, was interviewed recently on the Jax Red Letter Day Program, over Station WJBW, New Orleans, about her idea of planting trees as living memorials to men from the Lakeview section who lost their lives in World War II. The memorial, dedicated March 10, consists of trees planted in groups of ten. At the base of each tree is a bronze marker with the name of the soldier in whose memory the tree is planted and dates of his birth and death.

New GS appointments: The General Administration Board of the Graduate School recently named W. G. Finn, PMA Field Service Branch, head of the Department of Public Administration, and Harry Stevens, Bureau of Agricultural and Industrial Chemistry, head of the Physical Science Department. Charles F. Sarle, Weather Bureau, was appointed on the Departmental Committee on Physical Sciences.

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USDA

FOR APRIL 15, 1946

Reduce food waste.
Eat less wheat products, fats and oils.
Substitute more plentiful foods.
Increase farm production.
Make a Victory Garden.
Preserve foods in the home.
HOLD WORLD FAMINE AT BAY!

World food crisis

USDA WORKERS everywhere know about the world food crisis. A world crippled and strewn with war wreckage was hard put to feed its hungry. New misfortune came in unfavorable weather in Europe, where 1945 grain crops were but 67 percent of normal. Drought settled over the Mediterranean area. In the Northern Hemisphere only North America had favorable crops in 1945.

Then, as the Southern Hemisphere approached its harvest this winter, it became evident that drought was drying up the help that might have been expected from there. It became certain that the United States must share its food generously to help the millions facing famine.

Meantime, the war-weary and hungry peoples had eaten their stocks of food at a faster rate than could be sustained for the year, in expectation of greater imports following the war. Original estimates of food needs in occupied countries began to rise. Crops were lost in India to storm and drought.

In the U. S., our own wheat reserves shrank faster than expected, due to heavier feeding of livestock, and a rate of food demand continuing higher than had been anticipated. Transportation has been a serious problem also—there have not been enough boxcars to move the grain to ports.

Part of the grain which Canada and Australia might normally have furnished has had to go to India to relieve famine. Argentina also has had transportation troubles and has found it difficult to meet her share of the international wheat export pool. North Africa, which used to export grain, must now import wheat to relieve the drought shortage.

The result is that even if the U. S. ships its minimum goal of 6 million tons of wheat in the first 6 months of 1946, and if other wheat-exporting countries send a like amount, there will still be a shortage of close to 9 million tons in stricken countries.

To reach this goal, the U. S. has restricted the use of wheat for nonfood uses, raised our flour extraction rate, and asked our people to share by eating less wheat. Fats, too, must be shared.

We have been eating more food per person, on the average, than ever before. U. S. consumers are not expected to experience grave shortages, severe hardships, or even serious dietary adjustment. There are abundant foods with which to balance our meals—fresh fruits and vegetables, eggs, poultry, and fish.

Victory Gardens, 1946

WITH THE entire world unanimously calling for more chow, the gardening program has been rejuvenated, reinvigorated, and repowered. Diplomacy doesn't mean a thing when you're talking to hungry people. Whether called Home or Victory Gardens, it's all the same. The immediate objective is to produce and preserve more food. Grow foods at home as substitutes for other foods that can be shipped to people abroad who are suffering from malnutrition or starvation. Achieve better nutrition, better health, and vanishing middle-aged spread simultaneously! Save farm labor, transportation, and labor used to grow, process, and pack commercial vegetables. Food to win the peace is more than just a pleasant phrase. The time to garden is *now*.

The National Garden Conference of the USDA, March 26–28, recommended a goal of 20 million Victory Gardens in 1946. This goal is almost 10 percent more than the estimated 18,400,000 gardens planted last year. The conference called together practically all organizations interested in gardening, representatives from the majority of State extension services, other interested Government agencies, garden clubs, women's organizations, welfare agencies, youth groups, garden editors, and others. Plans for an all-out garden program were discussed and adopted.

Secretary Anderson read a special message from President Truman, pointing out that every pound of food from home gardens will release an equivalent amount of food for famine relief. The Secretary said, "There is more need for Victory Gardens in this first year of peace than there was in any year of the war." Chester C. Davis, chairman of the Famine Emergency Committee, told the conference, "The more gardens we have, the more food we can send abroad, and the more lives we can save." Extension Director Wilson said in closing, "If the many groups represented here go home in full support of the recommendations your conference will adopt, we may have hopes that this program for better gardens . . . throughout the Nation will be one of the real factors that will contribute physical health and greater morale and spiritual value to everyday American life."

Employee suggestions

SECRETARY'S Memorandum 1048, Revision 1, February 25, bears this title. Therein the Secretary stresses the necessity for a "steady flow of suggestions and ideas from the employees for improving the methods of doing our work." It is a traditional USDA policy to improve organization, procedure, and operating methods, and it has thus "earned a good reputation for economical and efficient management."

More of this sort of thing must be done in future. "Right now and in the next few years ahead Congress and the taxpayers of the country are expecting us to effect even greater economies and to reduce operating overhead to a minimum." Basic principles for operation of the most effective suggestion system will be found in a booklet recently distrib-

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uted to agency heads and administrative officers. It is entitled "Putting Employees' Ideas to Work."

All employees are not only entitled but are invited to make suggestions to improve USDA's operations. See the booklet, What's Your Suggestion? issued in February and intended for distribution to all employees as part of each Bureau's Management Improvement and Manpower Utilization Program, in which the Secretary expresses his vital interest. To keep directly in touch with developments, he will inquire from time to time about problems faced and departmental progress in solving them.

Cotton—and athletics

SURELY agricultural research is the only field of activity in which it would be possible to make a discovery or work out a program bringing $56,000,000 *additional* income to a group of our citizens in one year, and yet perhaps have it pass unnoticed. Research Achievement Sheet No. 45 (P) points out, however, that the persons who conducted the work on the one-variety cotton communities are O. F. Cook (retired) and C. B. Doyle, still active as principal agronomist in the Bureau of Plant Industry, Soils, and Agricultural Engineering.

We worked across the hall from them when this idea was first officially announced, back in 1911. In accord with it, a group of farmers organizes for the purpose of standardizing production on a single cotton variety. It has proved so successful that some States have enacted laws prohibiting planting of more than one variety of cotton in certain designated areas. An increased annual income estimated at $56,000,000, based on increased yields and premiums received by participating growers, was the dividend in 1944. This doesn't take into consideration the huge additional value resulting from more uniform fiber for the manufacture of fabrics with high strength and durability, vitally important to war and civilian needs.

Doyle also deserves a bit of notice as probably the best all-around athlete in the Department's history—a 24-letter man in tennis, baseball, football, track, basketball, golf. He's best known as a tennis player, which is reasonable since he has been included in the first 10 tennis players in the United States, and has held the District of Columbia tennis championship for something like 17 consecutive years, retiring undefeated. In odd moments, as opportunity for competition offered, he acquired half a dozen Middle Atlantic championship cups, and a couple of all-southern tennis championships.

Doyle played one season with the George Washington University baseball team (his only year in college) and was immediately elected captain. His coach considered him a big league baseball prospect, but thought he would be even better at football and basketball! He captained the great USDA baseball teams of 1906–08 that won the city championship and also served as manager. He had the unique distinction of having been selected all-district baseball player in three different positions—first, second, and third base—in three successive seasons. The explanation of this lies in the fact that Manager Doyle always assigned Player Doyle to the position on the team that most needed strengthening; and Player Doyle always strengthened it to the point where it was the best protected in the District! As a result, C. A. still looks like 56 million dollars!—JOHN A. FERRALL, PISAE.

Eggs and poultry

A STRONGER egg market has delayed operation of the consumer-use egg program. An intensive drive to interest the public in eggs will come immediately after the Lenten season. The distributive trades, hotel and restaurant associations, and industry advisory committees are being supplied with materials USDA has prepared on this program. With more eggs going into cold storage, driers have been unable to obtain all the eggs they want. Although egg production continues on a wartime scale, consumer demand, thus far, has kept pace.

The big drive on poultry will extend at least through April. Fact sheets on poultry culling and greater use of poultry meat (available from PMA Information) tell the story. In some areas, notably the west coast, feed scarcity already has made rigorous culling imperative.

A price-support program is in operation for both chickens and turkeys, largely in connection with disposal of flocks due to scarcity of feed. Because of the tight poultry storage situation, USDA has planned to can a large portion of the poultry bought under the price-support program. The Civilian Production Administration has been asked to assist in obtaining containers for poultry canning and for shell, frozen, and dried eggs.

Spud scandals

THE SPUD has long been bitterly maligned as a producer of inflated waistlines. Department nutrition experts rise to defend the potato. It's not the spud but the company it habitually keeps—generous helpings of gravy, butter, margarine, and so on. These, rather than the potato, make the calories soar.

If a potato weighs 5 ounces, 4 ounces of it are water. But the other ounce contains some protein of good quality, starch, iron, and other beneficial minerals, some B vitamins, and vitamin C. From a nutritional standpoint, a small serving of potatoes can replace a slice of bread. So, with a world food crisis on and bread saving fashionable, your motto might be "Reach for a spud instead of a roll," or, as the USDA more elegantly puts it, "Reach for a potato instead of more bread."

While reaching, remember the potato's reputation as fattening is almost wholly unjustified. A medium-sized potato provides about 100 calories. So does a thick slice of bread, a serving of green peas, sweet corn, or lima beans, or a large apple, for that matter.

Moreover, potatoes are plentiful. We should use them as much as possible to replace bread. They are bulky and perishable; hence will be shipped abroad only in limited quantities. And spike the spud scandal by insisting that potatoes do not fatten as much as their ill-earned reputation would lead you to believe.

How to write

THERE probably never was so much interest in how to write, certainly among USDA people, as now. It even extends to scientific workers themselves, and that is notable.

Outstanding among the how-to-write books is The Art of Plain Talk by Rudolf Flesch (Harper & Bros.). This book, as well as the Civil Service Commission bulletin, How Does Your Writing Read? is based on the Flesch formula for determining readability. Probably you don't know what that is. If you are writer, editor, administrator, or scientist, our advice is get hold of these publications and find out. Our Office of Personnel recommends the methods discussed. Extension Service has used them with great success.

Meanwhile, someone creeps shyly into the office to say that there is a little volume (published by E. P. Dutton) by

Ivor Brown, an Englishman, combining two little books, A Word in Your Ear, and Just Another Word. Our informant declares the prefaces at least to be well worth reading. Brown is severe with officialese, or gobbledygook, which he calls the barnacular (from barnacles). Go to it, now, read up and learn how to write.

REA's big job

RURAL ELECTRIFICATION ADMINISTRATION'S forces are now being marshalled for the mightiest rural power-line building program in history. Congress set a new record high when it authorized REA to lend $200,000,000 during the 1946 fiscal year. But, by January 1, approved loan allotments from this year's funds and pending applications exceeded available loan funds by more than $142,000,000. To help REA meet this unprecedented demand for rural electric service, President Truman asked that an additional $100,000,000 be provided for loans during the remainder of the present fiscal year. His 1947 fiscal budget message recommended that $250,000,000 more be made available for lending during the fiscal year beginning July 1.

This makes a total of $550,000,000 authorized by Congress or recommended by the President for REA loans during the fiscal years of 1946 and 1947, or more money than REA has loaned in the preceding 10 years. The magnitude of that assignment is emphasized by a glance at what was accomplished during the first decade. As of last June 30, the agency has received Congressional loan authorizations totaling $525,628,288, all of which had been allotted. As of December 31, 1945, REA had allotted a total of $666,954,331 as loans to 960 borrowers, composed of 883 cooperatives, 58 public bodies, and 19 private utilities. Of these borrowers, 845 were then operating 447,000 miles of REA-financed lines serving 1,400,000 consumers.

When REA was established in 1935, less than 11 percent of America's farms were receiving central station electric service. By June 30, 1945, this figure was 44.7 percent, but Administrator Wickard then estimated that 3,371,189 farms were still without this essential service. REA is collecting about 125 percent of the prearranged repayments schedule; its borrowers are $20,000,000 ahead of their dues.

The overwhelming majority of rural families that do not now enjoy electric service want it because they know what it has done for their more fortunate neighbors. There they have seen living standards raised to a level comparable with that prevailing in cities. They have seen that application of electric power to dozens of important farm tasks reduces labor, increases production, and augments farm profits. They see that they, too, must have electric power if they are going to keep abreast of the inevitable trend toward complete mechanization which is shaping the future of agriculture. Charged with a great responsibility, REA faces its task with a confidence born of careful advance planning based upon a solid foundation of practical experience.

May to Howard in AIC

O. E. MAY, Chief of the Bureau of Agricultural and Industrial Chemistry, resigned March 31 and was succeeded by Dr. L. B. Howard, Assistant Chief of the Bureau. Dr. May becomes associated with a large corporation in an executive capacity. He rose from the ranks in the Department, where he served for 23 years. He was the first director of the Soybean Products Laboratory at Urbana, Ill., and the first director of the Northern Regional Research Laboratory at Peoria, Ill. Prior to appointment as AIC Chief, he was ARA coordinator of chemical research.

Dr. Howard has been associated with AIC for 14 years. He was assistant to Dr. May at the Northern Laboratory, later was head of the Commodity Byproducts Division of the Western Laboratory, and became Assistant Chief of AIC last November. He has had wide experience in searching, through chemistry, for outlets for farm products and byproducts.

Anon Y. Mous

UNTIL YOU have been an editor, on however small a scale, you never fully understand what editors mean when they announce every so often that anonymous communications will be ignored. Nothing gives an editor a greater sense of frustration than a request for information, a kind remark, or a humorous thrust sent in anonymously. He wants to reply or to express his pleasure, but the unsigned missive makes this impossible.

Quite often bright, humorous thrusts have come in unsigned. More puzzling are unsigned requests for information or for some of the *USDA* mimeographed documents. Obviously the editor can do nothing in such cases but discard the missive. More often excellent points are brought up anonymously which the editor would like to see flower into contributions, but the unknown, impersonal, and disembodied writer who sent the note cannot be reached with a request or a reply.

Ring Lardner said that, early in his writing career, he found that by mailing his manuscripts barren of his name and address none were returned to him by editors. But he also discovered that was a very poor way for a writer to get on in the world. It is also a poor way to get what you want by mail. And if you have adverse criticism or a humorous dig, or if you want information, documents, space in *USDA*, or adjustment of a grievance, please sign your name. Nobody will bite you.

Tree planting

LARGE-SCALE tree planting, interrupted by activities of higher priority during the war years, is being resumed this spring, particularly in the Plains States, says the Soil Conservation Service. Farmers plant tree windbreaks or shelterbelts primarily to conserve moisture and prevent soil blowing. Increased wildlife populations are one byproduct of the plantings.

A survey of tree planting needs in soil conservation districts throughout Montana, for example, has been made, and plans have been developed for a more aggressive program in this field for the future. Each district conservationist has submitted his tree planting needs for the ensuing year. A thorough study is made in each district as to suitability of soil and moisture before trees are planted.

In Missouri, a policy of providing tree planting stock has been formulated. The State soil conservation committee likes farmers in districts to obtain their tree planting stock from the Clarke-McNary State Nursery. Any needed stock which is not available through this channel is supplied from SCS nurseries.—DOROTHY P. ROWE, SCS.

Veterans, attention: On March 1 the Office of Personnel issued a processed sheet covered on both sides with information about the education and training of veterans in the USDA.

Brief but important

Insecticide supply: This year it is more important than ever to save our crops from marauding insects and other plant pests. A check on the insecticide supply shows it to be very satisfactory except on rotenone and nicotine, which are short. Even with DDT there'll be the usual demand for other agricultural insecticides.

Alfred D. Stedman: Mr. Stedman, associate editor of the St. Paul Pioneer Press and Dispatch, has been appointed assistant to Chester C. Davis, Chairman of the Famine Emergency Committee. Mr. Stedman, former Washington correspondent and former Assistant Administrator of the AAA, has been loaned by the St. Paul newspaper for temporary duty in Washington.

Poultry Branch: Hobart Creighton, who assisted in the organization of this branch of Production and Marketing Administration and served as its director since October last, has returned to his own business in Warsaw, Ind. He is succeeded as director by W. D. Termohlen, an Iowa State graduate who has been in the Department since 1933, when he joined up to head AAA's poultry unit. Before that he had been extension poultry marketing specialist at Iowa State. For the past 3 years he had been chairman of USDA's Poultry Committee.

Legion of Merit: Lt. Col. C. J. Babcock, of the Bureau of Dairy Industry, who was the only milk sanitarian in the Army during World War II, has been awarded the Legion of Merit for his services in the Sanitary Corps of the Office of the Surgeon General from December 1942 to October 1945. The citation says he "contributed importantly to the procurement of a safe, welcome, and adequate milk supply for the armed forces and rendered invaluable service in protecting the health of military personnel against milk-borne diseases." Babcock is now back with the Bureau, where he has been market-milk specialist since 1920.

Typists, stenographers needed! Personnel Memorandum P-561, issued March 8, says Washington, D. C., needs many typists and stenographers in CAF Grades 2, 3, and 4. Civil Service was expected to announce examinations for these positions in both the departmental and field services. Typists and stenographers in the field who are interested in jobs in Washington should fill out applications and give them to their local personnel officers or send them to the Office of Personnel, Washington. Applicants eligible for transfer or reinstatement will be offered permanent appointments. Those not eligible for transfer or reinstatement will be considered for temporary indefinite appointments.

FS wins award: Because of its contribution to "the welfare, security and activity of the Nation at war," Wartime Advertising Awards, an organization of nationally known advertisers, publishers, and businessmen, has awarded to the Forest Service and the advertising agency of Foote, Cone, and Belding a certificate of merit for their handling of the 1945 Nation-wide forest-fire prevention campaign. The jury singled out as one of the best 100 newspaper advertisements of the year an FS 'ad' headline, "Last night you slept through 575 forest fires." America's forests and woodlands suffer an average of 210,000 fires a year—575 a night—and 9 out of 10 can be prevented, as they are man-caused.

Use of lunchrooms: Secretary's Memorandum 1154, March 15, says: "In our use of lunchroom facilities during other than lunch periods in Washington and in the field we should be especially careful to avoid taking excessive time away from our duties, gathering in large groups, obstructing passageways, or attracting attention by loud conversation. Citizens who are taxed to pay our salaries may characterize such scenes as lounging on Government time . . . Abuses of privileges result in strict prohibitions which may cause hardship in some cases."

Nutrition Programs Branch: This unit became part of the Food Distribution Programs Branch of the Production and Marketing Administration. If you want to know about its current activities and staff, look up Nutrition News Letter No. 44, March 1946, issued by PMA. The letter is signed by M. L. Wilson, Chief, and W. H. Sebrell, Associate Chief, Nutrition Programs Branch, and contains a full quota of useful information in this field in every issue.

Back again: Virgil Hassler, Navy veteran, is back in the Office of Information as Assistant Chief of Press Service under W. K. Charles and Don Lehman. Dana Reynolds, who served with the Seventh Fleet, is in from Manila, Shanghai, and points East, to take over Radio's weekly letter to farm radio-program announcers. Patrick Condon, LST-boat and Coast Guard man, has returned from what wasn't a vacation near Iwo Jima, Okinawa, and other places where most of us are glad we weren't; he is assisting Stanley Gaines in Inf.'s Distribution Control. Walter Conway, late of the Marines, is once more heading Inf.'s Printing Section. Mabel Hunt Doyle, lately a Wave officer, is back in Inf. as head of the Indexing Section. Kermit Overby has returned as a staff writer in Production and Marketing Administration.

Government scientific personnel: Dr. M. H. Trytten, Director of the Office of Scientific Personnel, National Research Council, at the USDA personnel officers' luncheon March 15, described the work of the recently established Committe on Training for Scientific Personnel. This committee, working with the Civil Service Commission and Federal Departments, is trying to make the Government service more attractive and worthwhile to qualified technical and scientific personnel. Dr. Trytten said we must make Federal Government scientific jobs equal in opportunity to those in universities and industry. Director of Personnel Reid, who introduced the speaker, said the USDA is particularly concerned about the need for more scientific personnel.

USDA Councils: D. A. FitzGerald, secretary of the USDA Policy and Program Committee, has issued 30 Questions & Answers About USDA Councils. Those interested in this should get copies from him. These are the State and County councils which succeeded the USDA War Boards.

Warehouse inspection consolidated: Secretary's Memorandum 1118, Supplement 7, issued March 5 and effective May 1, vests in the PMA Marketing Facilities Branch responsibility for all inspection of warehouses for storage of Government-held commodities acquired in carrying out commodity programs. Warehouse inspection is transferred to this branch from the PMA Shipping and Storage Branch, as are also any necessary personnel, funds, property, and records.

Hienton heads electrification research: Truman E. Hienton, of West Lafayette, Ind., was recently named chief of the Division of Farm Electrification, Bureau of Plant, Industry, Soils, and Agricultural Engineering. Mr. Hienton is a veteran of World Wars I and II. Before entering the service in No. II, he was in charge of farm electrification research at the Indiana Agricultural Experiment Station, where his work included projects to determine the practicability and economy of electricity for light, heat, or power in farm operations ranging from electric brooding of chicks and pigs to ultraviolet irradiation for poultry houses.

Gypsy and brown-tail moth control: "Amazing results" in control of these two moth pests are being achieved by use of DDT, applied in a concentrated spray from specially constructed apparatus attached to aircraft, from "axial-flow type" turbine blower, standard power spray equipment, and hand-operated apparatus. Aerosol application of DDT is another promising method. We learned this from the 1945–46 report from the Greenfield, Mass., headquarters of this work, which is in the Bureau of Entomology and Plant Quarantine under R. A. Sheals. DDT, in doses used for gypsy-moth control, is effective for 6 to 8 weeks, and is the first insecticide effectively to control the moth in the first larval instar stage when wind spread. Other insecticides cannot be applied effectively until the foliage is well developed and wind has already spread these larvae. EPQ is also continuing interesting experiments with traps, sex-attractant material, and various devices. Get the report for full details.

Price policies: Every now and then someone asks why the USDA shifts its price policies or proves unable to keep certain of its commitments and promises. The reasons for such changes are good. Policy flexibility is necessary to suit changing conditions. The Secretary's talk at Des Moines, February 15, on Price Relationships As They Affect Markets for Food, is an informative, well-rounded statement that answers most questions in this field. Ask Press Service for 328–46 and read it studiously. This will prove well worth while.

Veterans' education and GS: Veterans are flocking to educational institutions. The American Council on Education estimates that a quarter of a million returned service men will register in college this spring, and the number is expected to exceed 600,000 by September. In our Graduate School, spring enrollment shows 400 veterans—25 percent of all registrants. GS has been designated by the Veterans Administration as an approved educational institution and its courses, including correspondence, are available to all eligible veterans. Many veterans are getting educational counsel from the GS staff, either in person or by writing from the field. GS recently sent all USDA bureaus a flier, Helping Veterans Make Maximum Use of Educational Benefits Available to Them.

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USDA

FOR APRIL 29, 1946

Top personnel changes

NORRIS E. DODD was sworn in April 8 as the new Under Secretary of Agriculture in a ceremony at the Department, attended by Secretary of Agriculture Anderson, Secretary of Commerce Wallace, Members of Congress, and many USDA employees. John B. Hutson, outgoing Under Secretary, resigned to become UN Deputy Secretary General. He was also Administrator of the Production and Marketing Administration and President of the Commodity Credit Corporation, and to these two posts Secretary Anderson appointed Robert H. Shields, formerly Department Solicitor.

As PMA Deputy Administrator and CCC Vice President, the Secretary named Jesse B. Gilmer, who was Director of the PMA Budget and Management Branch as well as CCC Secretary. Gayle G. Armstrong, whom Mr. Gilmer succeeded, is a New Mexico businessman and rancher, who has served as Government representative in operation of the meat packing houses affected by the strike. He continues in this capacity and as Special Assistant to the Secretary.

Mr. Dodd was born in 1879 and has spent his full time since 1910 in the field of agriculture. As regional supervisor in Baker County, Oreg., during World War I, he handled wheat prices and allocations for the Food Administration. He has been a member of the East Oregon Wheat League and of the Oregon Cattle and Horse Raisers Association, livestock inspector for the RFC, exponent of the McNary-Haugen farm bill, county chairman on the 1933 Wheat Control Law, chairman of the Corn-Hog State Board of Review and of the State Agricultural Conservation Committee, and field representative for the Western Region of the Agricultural Adjustment Agency. He held increasingly important positions in the AAA, becoming its Chief in 1943. Then, when PMA was set up last year, Mr. Dodd was named Director of its Field Service Branch.

As PMA Administrator and CCC President, Mr. Shields directs the Department's action programs in production and distribution, including the important job of getting wheat, meat, and fats and oils for famine relief abroad. Coming to the USDA in the AAA in 1934, he rose through various legal positions to become Solicitor in 1942. Mr. Gilmer also came to the USDA in 1934, and worked up to his present appointment through positions in the Bureau of Animal Industry, AAA, Resettlement Administration, Farm Security Administration, CCC, and PMA.

Partial crop insurance

A NEW crop-insurance feature, offered by the Federal Crop Insurance Corporation for the first time this year, is partial insurance. It enables the farmer to fit the cost of crop insurance to the amount he can afford or the protection he needs. As before, there are still two levels of insurance, covering 50 or 75 percent of the average yield for the farm. But the farmer can take 60, 70, 80, or 90 percent of either plan. That means his premiums and indemnities, in case of loss, are figured at the level of the plan he chooses and then reduced according to the percentage of the partial insurance selected.

Partial insurance applies in 1946 to cotton, spring wheat, and flax. A similar plan applies to the experimental crops, corn and tobacco. Partial insurance does not affect the level of insured production at either 50 or 75 percent of the average yield. Indemnity is payable if the farmer's production drops below that level. The new provision affects only the amount payable on both premiums and indemnities.

Men at work

IT WAS the writer's recent privilege to revisit the Eastern Regional Research Laboratory near Philadelphia and the northern lab near Peoria. It is quite impossible to do more than briefly cite the highlights of activity at these labs in our limited space. Therefore, if any subject mentioned below intrigues you and you want more information, contact Frank Teuton, Information Division, Bureau of Agricultural and Industrial Chemistry.

First the eastern lab:

When the rutin story really breaks, add to your "predictions of things to come" that it will be far bigger and more startling than you previously imagined. J. F. Couch, working under M. J. Copley, has the problem under hot pursuit and is getting remarkable—in some cases astonishing—results.

J. J. Willaman reports that industry (mainly the cigarette) now uses 8 or 9 million pounds of bland apple sirup annually, made by the eastern lab's method. R. K. Eskew has perfected the Willaman method of preparing essential apple (also peach, grape, blackberry, and raspberry) flavor concentrates which, added to jams, sirups, candies, and ice cream, produce a full fresh-fruit flavor.

W. C. Ault and associates have made further progress in finding and utilizing antioxidants which, when fully applied in practice, will give lard the stability and other qualities of vegetable shortenings.

L. T. Smith and E. Yanovsky's allyl starch varnish, or allyl ether of starch, which provides a durable high finish for wood, glass, or metal and can be used to coat and impregnate paper and textiles, as well as an adhesive for laminated products and in making a plastic, has now reached a top state of perfection.

Next the northern lab:

R. T. Milner told about work that will eventually do for corn what has already been done for soybeans—increase the oil content, and facilitate genetic control of the oil, protein, and starch contents.

J. H. Shollenberger, whose informative commodity studies have been mentioned elsewhere herein, has just returned from Iran, where he operated a flour mill in Teheran which effected a 108 percent extraction of the grain—trash unavoidably included.

E. C. Lathrop's plant to make alcohol out of corncobs at last arrived after much delay, was ready to assemble, and was expected to be in operation by the end of May. Lathrop's entire attitude towards agricultural residues is novel and imaginative; he looks upon them as raw materials for products not otherwise or hitherto available. Furthermore, his objective is not to make the obvious product from them, but to produce from them one product in such quantity or so valuable that it will finance the fabrication of all the byproducts. His theory is too long properly to present here, but it's worth knowing about. Write him; he can send you reprints.

W. H. Goss recently returned from Germany where he surveyed soybean-oil plant facilities and methods. He believes he brought home information that will aid in licking the soybean-oil reversion problem—its tendency to develop an off flavor on standing, due not to rancidity but to chemical changes in some unknown ingredient present in infinitesimal quantities. Solution to the problem may be worth 15 million dollars a year.

C. T. Langford and his assistant Slaughter show you superior glucose sirup made by the wet-milling of wheat, a process in which every byproduct is saved and utilized.

J. C. Cowan told how Norelac has gone into widespread industrial use and is now made

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by commercial concerns. He also explained a new process for extracting the oil from soy flour, which gives a better tasting flour and a finer quality protein.

Asger F. Langlykke, who now heads the famous Fermentation (or "penicillin") Division, told about its reconversion to other projects after being devoted to penicillin 100 percent until November 1, 1945. He also explained the industrial and production marvels that molds can achieve.

FS man to advise Germany

JOSEPH C. KIRCHER, for the past 12 years regional forester in charge of Forest Service operations and National Forests in the 11 Southern States, has been named forest control officer and adviser to the military Government in the U.S. zone in south and west Germany. Lyle F. Watts, FS Chief, appointed Mr. Kircher, who has been with FS since 1909, at the request of the commanding officer, U.S. military zone.

The Technical Industrial Disarmament Committee of the Foreign Economic Administration (now Office of International Trade) said recently that German forests have long been outstanding in productivity and intensity of management. Though Germany depended for war material to an unprecedented degree upon wood in various chemical and modified forms, her forests were well managed during World War II.

German postwar problems with which Mr. Kircher will deal are twofold, the committee says: (1) To exploit the forests to the point where they will provide reconstruction timber for Belgium, the Netherlands, and perhaps France, without wrecking the forests for future generations; and (2) to build up German civilian wood production and industries without developing those which might again aid war.

John Herbert Stone, successively assistant supervisor of the Cherokee National Forest in Tennessee, and supervisor of the Nantahala and Pisgah forests in North Carolina, will succeed Mr. Kircher as regional forester for the South.

30,000 carloads of lemons: That many lemons annually are harvested, shipped, and in some instances stored as long as 3 months in the U. S. TB 908, on changes in lemons during storage as affected by air circulation and ventilation, should be your bedside reading matter if you are a lemon fancier. Learn all about decay break, alternaria rot, the color of the lemon's buttons, and E. M. Harvey's new practical method of predicting safe maximum storage periods for given lots of lemons. The bulletin should prove of the greatest interest to all technicians and scientists in the lemon industry and those who do research on this fruit.

Two Ext. retirements

EXTENSION DIRECTOR M. L. Wilson and friends and associates gathered March 7 at a luncheon honoring Eugene Merritt and Miriam Birdseye on the eve of their retirement.

Entering the Department in 1905 as an employee of the old Bureau of Statistics, Mr. Merritt has served agriculture well in almost every phase of extension work. Joining the Extension Service (then States Relations Service) in 1914, he was closely associated with such stalwarts in the early development of extension work as Dr. Alfred C. True, Bradford Knapp, and C. B. Smith. The vast fund of knowledge and experience of farm people and their problems, which Mr. Merritt garnered in his more than 41 years of service, has remained a constant source of sound guidance to both the novice and the veteran in agriculture. Mr. Merritt will continue in an advisory capacity.

Miss Birdseye joined Ext. during World War I, and is widely known for her pioneer work in nutrition. Ever alert to the need for increasing the dietary level of the Nation, she has closely followed the progress of science in this field and has adapted it as quickly as practicable to the Ext. educational program. Like Mr. Merritt, Miss Birdseye worked closely with the men and women who helped shape the destiny of Ext., and played an important role in the development of its present nutrition program.

Guinea pig heroes

NOT long since, two Belgian scientists left the U. S. for their homeland with a small crate of guinea pigs selected and prepared by the Bureau of Animal Industry's Pathological Division. Half the guinea pigs had been treated with the agent causing dourine, a horse disease similar to syphilis in man. This agent can be kept alive only in the bodies of certain warm-blooded animals. The untreated guinea pigs were spares. One treated animal will wind up at the Pasteur Institute in Paris.

Laboratory workers in Belgium will inoculate white rats with the blood from the treated guinea pigs. These will, in turn, yield adequate quantities of dourine protozoon to prepare an antigen which is used in detecting the disease in horses, somewhat as the Wassermann test indicates syphilis or its absence in human beings. Thus it is that these unintentional animal heroes carry with them the means to combat a war-revived spread of dourine among Belgian horses.

Twenty years ago the USDA rendered a similar service to Belgian scientists. As a consequence, Belgian horses were entirely freed from dourine. But during the war the protozoon culture then sent to Belgium, and which requires frequent propagation, appears to have become lost. Unfortunately, treatment of the disease is not practicable. However, an animal doctor has a way out denied to physicians who treat human beings. He can slay the patient and thus combat spread of dangerous infectious diseases in animals.

Achievements

WITH issuance of its fiftieth Research Achievement Sheet, Agricultural Research Administration got out a press release (467–46) and marked an anniversary. The release lists the names of the first 50 of these nontechnical 2-page reports. They are reproduced on heavy paper eminently suitable for filing, the front giving a popular account of the achievement, and the back listing references and additional information about the individuals or units making the discovery or improvement, estimated cost and practical value of the work—in monetary terms if possible—and other apposite facts.

Sheet No. 50 deals with seed-cotton drying equipment. It shows how more than 30 million bales of cotton have been conditioned during the past 15 years by the drying process developed in the Bureau of Plant Industry, Soils, and Agricultural Engineering. From this development, made at an estimated cost of about $60,000 for research, growers have realized more than 50 million dollars in the form of increased value of their product.

Sheet No. 49 tells how research costing $22,000 a year from 1938 through 1945 resulted in improved machines for producing fiber flax more economically. Use of this equipment has increased the income of fiber-flax producers and processors by about $100,000 a year, through reduced labor costs and improved quality of product.

Since the press release appeared March 4, Sheet 51, telling how flaxseed production was established in California and Arizona, has slipped through to us. Like 49 and 50, it deals with research carried on in PISAE. In this instance, farmers in the two States have derived

incomes of at least 50 million dollars from flaxseed during the 1941–45 period. As a sequel, new linseed-oil, paint, varnish, flax-straw-fiber (for paper making) and linseed-meal industries have appeared locally.

New insecticide!

YOU MAY be inclined to say, "That's nothing new." But it just shows how active the entomologists are these days. Now it's benzene hexachloride which the Bureau of Entomology and Plant Quarantine is trying out on the cotton crop. A British discovery, it appears to outshine DDT in some ways and insofar as cotton insects are concerned. For instance, small-scale tests indicate that it kills boll weevils, which DDT does not readily do.

It even slaughters the weevils better than the old standby, calcium arsenate. While at the job, it also kills more cotton leafworms, plant bugs, cotton fleahoppers, and cotton aphids than do standard insecticides. When you think of the number of insects with a yen for cotton, you wonder how the plant ever manages to grow at all. Here is the first substance ever found to give promise of destroying boll weevils, cotton aphids, and other sucking insects all in one holocaust.

However—there's always a catch—benzene hexachloride is less effective than calcium arsenate or DDT for control of bollworms. But low dosages do not appear to affect the cotton plants adversely. Further tests are under way on plants and soils. Though only small quantities of the chemical are now being manufactured in the U. S., there is sufficient for further scientific tests. If these prove the chemical's value for cotton-pest control, it may soon be made available to cotton growers.

Africa Advancing

DID YOU KNOW that Africa is inhabited by Hamites, Semites, Bantus, Bushmen, and a few Europeans—as well as by the Negroes? So various are the Dark Continent's racial stocks that over 700 different languages are spoken, and these are exclusive of dialects.

Were you aware that the soil of tropical Africa is usually mediocre or poor? Lush jungle growth is attributable to high temperature and humidity rather than to soil fertility. "Hidden hunger" exists widely in most of tropical West Africa. Agriculture in Africa also requires special research, for most results so far obtained in agricultural research apply primarily to temperate zones.

During the winter months of 1944–45, Thomas M. Campbell, field agent of Extension Service in charge of work among Negro farmers in seven States (see *USDA* March 18), visited Liberia, Belgian Congo, French Equatorial Africa, French Cameroons, Nigeria, Gold Coast (including British Togoland), and Sierra Leone. Dr. Jackson Davis and Miss Margaret Wrong were the other members of the small group sent by the Foreign Missions Conference of North America to study West Africa. The former is Associate Director of the General Education Board of New York and the latter Secretary of the International Committee on Christian Literature for Africa.

A substantial result of this study is the 230-page indexed publication, Africa Advancing, a Study of Rural Education and Agriculture in West Africa and the Belgian Congo. Its authors are Davis, Campbell, and Wrong. Copies may be obtained from The Friendship Press, 156 Fifth Ave., New York 10. The pamphlet is interesting, informative, and authoritative. It is also extremely revealing to those who know little or nothing about what is essentially the native Negro belt of Africa. It is strongly recommended to those who wish to learn more.

Vet gets FSA training

FIRST VETERAN to step from the Farm Security Administration's individualized farm-management training to ownership under the tenant-purchase plan is Clarence Edelen, 27, of Brandywine, Md. A year ago he was flying over Europe, tail gunner on a bomber. Today he owns 150 acres of good Prince Georges County land and is farming it with latest efficient methods.

Edelen, farm-reared native of southern Maryland, came home in 1945 after 4 years in the Army. He felt a little rusty on agricultural matters, dubious about competing with farmers who had followed each new technical advance. After talking with FSA Supervisor Lee Miller, he decided to wait a year before buying land, using the season to brush up on old skills and try a few new ideas.

Farm Security advanced operating funds for tractor, livestock, seed, and feed. Miller helped to draw up the farm-and-home plan and visited the farm whenever Edelen wanted special advice. By the end of the year the tobacco crop alone was worth more than he had borrowed—and he owned chickens, milk cow, a start on a beef herd, plenty of feed.

Miller suggested that he was well prepared to undertake ownership under the FSA plan. The county FSA committee approved his application, appraisers said the land he wanted was worth the price, and the $12,000 loan for farm and improvements was closed early in March. Already Edelen has his house repaired and plans on paper for a new barn and tobacco house.—FRANCES HUNT, FSA.

Brief but important

Meet Norelite: Norelite is the trade name of a new-type weatherproof and waterproof glue developed by the Northern Regional Research Laboratory. This glue, 30 percent cheaper and with superior binding strength, was developed by Glen E. Babcock and Allan K. Smith. It is made by combining byproducts, soybean meal or corn gluten, with a special preparation of water-soluble phenolic resin. Norelite makes plywood practical for many exterior uses unsuited to the old plywoods. In tests, it stood up under outdoor weather conditions longer than the plywood it held together, and has been used successfully for 2 years in a big commercial plywood mill in Wisconsin.

Fohrman heads BDI Division: M. H. Fohrman now heads the Division of Dairy Cattle Breeding, Feeding, and Management Investigations, Bureau of Dairy Industry. Mr. Fohrman had had charge of BDI's experimental breeding herds at the Agricultural Research Center, Beltsville, since 1921. He succeeds R. R. Graves, who resigned to become a collaborator in BDI. Joseph B. Parker, for the past 17 years a BDI extension dairyman in the Eastern States, has transferred to Mr. Fohrman's Division.

Material on food emergency program: Among informational materials on this program are: Available Publications, April 1946; Food Information Calendar, a weekly; Famine Emergency Campaign, a fact sheet; How Homemakers Can Help Save Food to Fight Famine; and Garden and Conserve. Write or phone (3511) Distribution Control Office, Office of Information, U. S. Department of Agriculture, Washington 25, D. C.

The World's Need for Food: This is the title of a talk by Chester C. Davis, Chairman, Famine Emergency Committee, in an intermission of the Metropolitan Opera, broadcast over ABC March 23. Ask the Press Service for 621–46.

War's effect on textiles: Bess V. Morrison and Hazel M. Fletcher, of the Bureau of Human Nutrition and Home Economics, are coauthors with four others of How the War Affected Civilian Textiles, in the Journal of Home Economics for January. The authors report a significant cooperative project of HNHE with research workers in some of the States, showing how essential fabrics were down-graded during the war and how great is the need for minimum specifications for staple textiles. Mrs. Morrison, at the Agricultural Research Center, Beltsville, Md., has a very limited number of reprints for research workers only. Others can get the Journal from the USDA Library or public libraries.

Negro health. National Negro Health Week, now in its thirty-second year, was observed March 31 to April 7. The aim—to get Negroes to "eat well at home, eat well at school, and eat well at work." To further the campaign carried on by the U. S. Public Health Service, USDA supplied the Negro press with material on home nutrition, school lunches, and industrial feeding. This movement to improve the health and living conditions of Negroes was sponsored originally by Booker T. Washington, famous Negro educator, welfare worker, and founder of Tuskegee Institute in Alabama.

Famine executive committee. The recently established Executive Committee of the Famine Emergency Committee includes: Chester C. Davis, chairman; Eugene Meyer, publisher of the Washington (D. C.) Post, vice chairman; James W. Young, chairman of the Advertising Council; Mrs. Anna Lord Strauss, president of the National League of Women Voters; George Gallup, director of the American Institute of Public Opinion.

Cadet wheat. A new variety of hard red spring wheat, Cadet is the final result of a cross made in 1936 by J. Allen Clark of the Bureau of Plant Industry (now Bureau of Plant Industry, Soils, and Agricultural Engineering). New varieties in this wheat group, distributed to farmers since World War I, added about 300 million bushels to U.S. harvests during the 4 war years and some 100 million to the 1944 wheat crop, the first one to pass the billion-bushel mark. USDA new, improved varieties of all groups of wheat contributed to the record-breaking 1945 crop of 1,123,000,000 bushels now being conserved at home and used abroad to fight starvation.

"Average" figures on food. While we in the U.S. have been eating food at a daily rate of some 3,400 calories per person, the urban population in half of Europe is existing on less than 2,000 and in some areas less than 1,500. But even "average" figures do not tell the whole story. "Per capita" figures assume that each person gets his equitable share. Human beings fighting for food to live do not consider statistics or equity. The weaker and the poorer, who get far less than the "average per capita" consumption, suffer the most.

Fertilizer committee to continue: The Committee on Fertilizers of the Combined Food Board has agreed it is desirable to continue the committee's work during the 1946–47 fertilizer year, in view of the prospect for continuing shortages of many fertilizer materials.

FSA loan funds increased. Farm operating loans will be made to approximately 10,000 farmers—principally World War II veterans—this spring with the additional $15,000,000 made available to the Farm Security Administration by the Second Urgent Deficiency Appropriation Act, 1946, approved March 28. Dillard B. Lasseter, FSA Administrator, said veterans will have preference. The original $67,500,000 for this year was practically exhausted March 31. Ask Press Service for 66–46.

Negro county agent aids Liberia. Charles E. Trout, Tuskegee-trained agriculturalist and county agent in Tuscaloosa County, Ala., was loaned last year by the USDA to the Liberian Government to help solve food problems there. Recent reports from Liberia say Trout has organized extension work as an important long-range program. Ten agricultural aides have been appointed to carry on farm demonstrations in various districts, and demonstration plots have been established. Frank E. Pinder, formerly Negro county agent in Florida and also with the Farm Security Administration, and now farm specialist with the Office of International Trade, is working with Trout in developing the Liberian farm program.

Feed grains restricted: The USDA, through War Food Order 145, effective April 1, restricts the use of grain, grain products, and grain byproducts by mixed feed manufacturers. It limits the use and inventories of corn and grain sorghums by food manufacturers and processors. It controls the delivery of corn through requirements for a certificate of compliance from purchasers based on a showing of their needs. It prohibits the purchase of grain or grain products to feed hogs to heavy weights or cattle to highest grades, or poultry beyond 80 percent of last year's production. Ask for press release 672–46 for details.

Home Demonstration Week: Radio programs and exhibits are planned by the 51 States and Territorial extension services for observance of this week, May 5–12. Here are a few. In Virginia, the Governor will proclaim the week and appear on a special radio broadcast with the extension director. California plans county-wide meetings. A special train of exhibits will tour New York State. Hawaii will have special radio programs. May 4, Consumer Time, May 5, CBS Country Journal, and May 11, Farm and Home Hour, and American Farmer, are national radio programs which will feature the work of rural women. An exhibit of home-demonstration work in the States and counties will be shown in the patio, Administration Building, Washington.

I Am an American Day: President Truman has proclaimed Sunday, May 19, as I Am an American Day. He has urged groups everywhere "to plan and hold, on or about that date, exercises designed to help our new citizens, both native-born and naturalized, to understand more fully the significance and responsibilities of citizenship in our self-governing Republic, so that they may be better prepared to add strength to the common purpose of all our citizens that this Republic shall continue to maintain its place of leadership and service among the nations of the world." In 1945 about 2,660 Department employees reached 21 years of age and so became full members of the body politic.

Agricultural Policy: This is the title of MP 589, fourth in the series entitled "What Peace Can Mean to American Farmers." The other three were Post-War Agriculture and Employment, MP 562; Maintenance of Full Employment, MP 570; and Expansion of Foreign Trade, MP 582. The newest member of the series has an introduction by the Secretary and was prepared by a group under the leadership of Chief H. R. Tolley of Bureau of Agricultural Economics.

Tagua: There is a piece about tagua in March Agriculture in the Americas. These are palms found in Ecuador and other tropical portions of the Western Hemisphere from Peru to Panama, which bear bur clusters composed of sections (or carpels) each of which contains from four to six seeds or nuts. These nuts, about the size of hen's eggs, gradually become extremely hard and resemble animal ivory. Such ivory nuts are used for making buttons, some of which may be on your clothes. Though the article does not say so, the hard endosperm of the ivory nut contains a condensation product (mannan) of a rare sugar called mannose (an aldohexose). It is made by hydrolyzing the ground nuts with acid. As a chemist, the editor once worked out a method for making it in the old Bureau of Chemistry. Oddly enough, mannose has a bitter taste, making it unique among sugars.

Social Security for Farm People: This is the title of a question-and-answer leaflet issued this year by the Department and prepared in cooperation with the Social Security Board. It covers 14 pages and 41 questions with answers. Get copies from the Office of Information.

A job vets like: Because it can be the kind of job attractive to a young fellow with an urge to roam, some returning veterans are interested in qualifying as licensed Federal-State inspectors of fruits and vegetables. These fellows follow the crops seasonally and may work in half a dozen States a season. For more details get press release 379–46 from Press Service.

Jefferson Memorial Auditorium: This is the official name of the auditorium in the South Building of the Department, not something in the Jefferson Memorial over by the Tidal Basin in Washington. It was so named because Jefferson really was a big-shot agriculturist in his day. If you don't believe it, ask the Bureau of Agricultural Economics for its processed publication Jefferson and Agriculture, by Everett E. Edwards, Agricultural History Series No. 7, and read up. Meanwhile, remember the Jefferson Memorial Auditorium is *our own* USDA *auditorium*.

Eugen Steinach: An excellent review of this research worker's life and achievements appeared in December 1945 Scientific Monthly. It is by Dr. Harry Benjamin and is entitled "Eugen Steinach, 1861–1944: A Life of Research." Some of Steinach's final investigations involved domestic animals and were carried on by him in exile in Switzerland.

Button, button: Young Bill Skrzypek, of Niagara Falls, N. Y., wanted a button from a Forest Ranger's uniform to show to his gang. So he wrote the Forest Service at Portland, Oreg. "My gang," wrote Bill, "don't think I mean it that when old enough I will be a real Forest Ranger." Bill added that the gang was wrong. Department regulations fail to provide for handling requests from button collectors, but Assistant Regional Forester Jack Horton, who used to be a ranger on the Wallowa National Forest, found some spare buttons from an old uniform, and sent one to Bill. "We can't let him down," he said.

Treasury for the Free World. This is the name of an anthology of contributions to the magazine, Free World, published by Arco Publishing Co. (400 Lexington Ave., New York City). The USDA is represented therein by Mordecai Ezekiel and T. Swann Harding.

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MAY 23 1945
U. S. DEPARTMENT OF AGRICULTURE

FOR MAY 13, 1946

PMA appointments

R. H. SHIELDS, new Administrator of the Production and Marketing Administration, in a memorandum dated April 15, announced steps to centralize administrative responsibility for PMA action programs in the field and a number of staff appointments and reassignments. The new Director of PMA's Field Service Branch is Dave Davidson, farmer and former employee of the Agricultural Adjustment Agency and other USDA field organizations, as well as former California State PMA Director. His Associate Director is C. B. Hodges, a Texas rancher and a district supervisor of the Surplus Marketing Administration in 1939, since when he has been associated with various USDA field programs, most recently as PMA Texas State Assistant Director.

Other personnel changes announced by PMA Administrator Shields are: Director, Cotton Branch, C. D. Walker, former director of the Southern Division, FSB, who succeeds Carl C. Farrington, now Assistant Administrator of PMA; Director, Grain Branch, L. K. Smith, former director of the North Central Division, FSB, also succeeding Mr. Farrington; Director, Fruit and Vegetable Branch, S. R. Smith, formerly its associate director, succeeding E. A. Meyer, now PMA Assistant Administrator; Director, Budget and Management Branch, Frank Woolley, formerly its assistant director, succeeding J. B. Gilmer, now PMA Deputy Administrator; Manager, Federal Crop Insurance Corporation, Gus Geissler, former director of the Western Division, FSB, succeeding Carl Wright who is now associated with Mr. Walker in the Cotton Branch.

Division directors of FSB are: Southern, T. R. Breedlove, former State PMA Director for Georgia; Western, L. H. Norton, former State PMA Director for Kansas; North Central, Guy Smith, former assistant director of this division; East Central, John East, former acting director of this division. H. B. Boyd, who remains as Director of the PMA Office of Price, also becomes a Special Assistant to the PMA Administrator.

A Retirement System for Farmers: This is the title of a pamphlet by Murray R. Benedict, issued by the National Planning Association, 800 Twenty-first St. NW., Washington 6, D. C. It is No. 49 in their series, price a quarter.

In the milkshed

MARIN COUNTY, over across the bay from San Francisco, where some say it was conveniently placed by Providence to hold one end of the Golden Gate Bridge, is in all truth the milkshed of that city. Here, ever since the county started, dairying has been the main occupation and today some 25,000 milk cows work diligently 24 hours a day to supply milk for the big city. That is the densest dairy-cow population in the State.

Marin has a population of some 60,000—largely San Francisco suburbanites—but there are some 600 farms and about 2,000 people engaged in agriculture. M. B. Boissevain is the county agent, and he is all there is; he took the job in 1920, and the county has never had another agent.

Like most of California, Marin has climate*S* (with a big S) for, if you don't like the weather where you are, you just round the bend and find a new climate there. For instance, San Rafael, the county seat (12,000 pop.) has an annual rainfall of 36½ inches, but go a few miles in one direction and you come to where there are 44 inches, while a few miles in another takes you to a 25-inch region. Low for the county is 20 inches, or less.

All this rain doesn't go into the milk can, of course, but it does produce pasture for the cows. While there are small beef cattle, sheep, poultry, and fruit enterprises, dairying is tops, and always remember that *dairying produces more income in California than any other agricultural enterprise, citrus included.*

Moreover, a higher percentage of dairy cows is under test in Marin County, under normal conditions, than in any other county in the U. S. California has a greater percentage of its cows under test (13) than any other State, and Marin County had 40 percent under test before depression, war, and labor difficulties somewhat disrupted things. However, it definitely will come back. The percentage today is 20.

The testers are trained men who weigh the milk produced by each cow during one 24-hour period each month, determine its butterfat content, and calculate the level at which the animal should be fed concentrates. That kind of work pays dairymen better than anything else into which they could put their money and the cost is very low.

Statistics show that, with a high percentage of its animals under test, Marin County doubled its milk production without an increase in cow population, while at the same time making great savings in feeding costs. For cows that had been mere "boarders" at the dairyman's table, eating their heads off but not earning their way, were eliminated by culling, and all other animals were fed just sufficient concentrates to maintain their top milk and butterfat production levels.

The milk is produced in some of the most up-to-date establishments you could find anywhere and amid scenery unequalled anywhere (effects of California on a Marylander). It is of very low bacterial count and meets all hygienic requirements of the San Francisco market. Moreover, a great deal of credit for this Marin County achievement can be placed squarely upon the ample shoulders of Agent Boissevain, who began his labors here when he alone represented the USDA and his State in this relatively small (for California) county.

To all employees

THE SECRETARY has asked that the following quotation from a statement made by W. A. Jump, the Director of Finance, be called to the attention of all officials and employees. The statement was made before the Agriculture Subcommittee of the House Committee on Appropriations in connection with the Department's budget for the fiscal year 1947.

Because the Department has had a tremendous turnover in personnel in the last 10 or 15 years, we have worked hard to see that the new personnel which comes into the Department understands that we are spending public or other people's money and that this requires greater care than if we were spending our own money. When we find that someone in the Department does not seem to carry through on this basis, we are disappointed, and we do not like it. We want them all to be exposed to the idea that when they are spending government money it is the people's money, the money of the taxpayers of this country, and there is a certain attitude of care and prudence and caution that you are obligated

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to carry out with respect to that if you are going to stay in business as a public official.

I would put the acceptance of that idea and the performance under it—the way it has sunk into the minds and being of the people in the Department of Agriculture—against any group in the country. Of course, we make some mistakes; we have our slips; we do not succeed 100 percent. We are always embarrassed when we do have someone who makes a slip, and it would be contrary to human nature to expect us not to have a slip of some kind in a thing of this character. But in general I am inclined to place a great deal of dependence and reliance upon the attitude which I have described, because I believe it is a basic requirement for economical operation of a public activity. I believe it is something which has had a great deal to do with the splendid record which those in the Department of Agriculture have made in carrying out the great programs which the Department has carried out, in all of their ramifications, over the years.

Flying farmer

HE FLIES through the air with the greatest of ease, and chats with the farmers about A. C. P.'s.

Whatever you say (or think) about this rhyme, you can't deny that Community AAA Committeeman Giles Griswold has an up-to-date, efficient method of getting word about the Agricultural Conservation Program to farmers in St. Mary's Township, Hancock County, Ill.

Flying his small Cub plane, he needs only 4 days to contact farmers on his allotted 44 farms, and that's above the county average. The terrain in the northwest section of the township is generally level, and Griswold can set his ship down on almost any farm. He just buzzes the cow pasture of a neighbor, who comes out and waves permission to join the flight pattern, and Griswold brings his single-engine job in as neatly as a Navy flier can set down a Helldiver on the flight deck of a carrier. Then Griswold and his neighbor talk over farm plans in the shade of the Cub's wings.

All three community committeemen in St. Mary's live in the southeast part. When they got together to divide their farm plans for making down-the-road contacts, each figured he would have to drive 10 to 12 miles every day in contacting farmers in the northwest section. But Griswold was undaunted. He carried the good news so far and fast that the sign-up in the northwest section of the county is the best in history, according to reports from Farmer Fieldman Ewell E. Gerdes to State Chairman Lee M. Gentry.

Gerdes says Griswold has a landing field on his 275-acre farm and uses his plane for many things besides contacting farmers for AAA. He goes after repair supplies for his farm equipment, groceries, and other necessities. Some day, the Flying Farmer may even haul a few shoats or some fresh vegetables to market. He has been a farmer 3 years and an AAA committeemen for two.

One-hand typing

PHYSICAL defects are not always handicaps. Louise A. Gerhart, for the past 18 years a clerk-stenographer in the Bureau of Animal Industry office in Albuquerque, N. Mex., has proved this. Though she lost the use of her left arm through infantile paralysis in 1917, she graduated from high school and learned to type while in a clerical job in Chicago. At that time there was no system for teaching typing to handicapped persons, but Miss Gerhart worked out a way to type—and type well—with one hand. She acquired a speed of about 65 words a minute on straight copy and 38 words on transcription from shorthand and from longhand rough draft. These are above-average speeds for people using both hands. Her typing is also accurate.

Miss Gerhart says a person with the use of only one hand can use any typewriter, at any desk, in any position used by other typists, without special gadgets or equipment. She found the only change necessary is shifting the chair to the left (for a right-handed person). The Division of Training, Office of Personnel, has detailed information on her typing method, which has been recommended by commercial schools and colleges.

Information about USDA

BELOW ARE the titles of 10 mimeographed documents which can be supplied in limited quantities by the editors of the Department of Agriculture house organ, *USDA*. To procure them, address T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C., or if you are in a great hurry phone Miss Glick, Ext. 5451.

No. 1, Origin, Structure, and Functions of the U. S. Department of Agriculture; No. 2, Constituent Agencies of the U. S. Department of Agriculture; No. 3, Abridged Chronology of Agriculture's Part in the War; No. 4, Condensed History of the U. S. Department of Agriculture; No. 5, Current List of Top Officials of the Department of Agriculture (Abridged); No. 6, Important Recent Achievements of Department of Agriculture Scientists; No. 7, Outstanding Scientific Publications by USDA Research Workers Issued by the Department of Agriculture; No. 8, Abridged List of Federal Laws Applicable to Agriculture (Including Reference to Former Functions); No. 9, Biographies of Persons in Charge of Federal Agricultural Work, 1836 to Date; No. 10, Our Department Scientists.

Revisions of documents which obviously have to be kept current are made whenever necessary. *As we have no facilities for maintaining a mailing list or recording advance orders, we shall have to ask you please to communicate with us as above whenever you think new issues should be available.*

Nos. 1, 2, 4, and 9 are revised whenever changes make this necessary. Nos. 3, 7, and 10 probably will not be further revised. New issues of No. 5 appear the first of each month and of No. 6 on January 1 and July 1. No. 8 is revised annually in the Office of the Solicitor, the new issue to appear July 1. *Cut this out and keep it.*

Penicillin X production

WHEN MEDICAL research found that penicillin X is a superpenicillin—two or more times as potent on many organisms as commercial penicillin and effective against several organisms causing diseases that do not yield to commercial penicillin—investigators sought new strains of the *Penicillium* molds that would yield more penicillin X, thus making practical the commercial production of this extra effective form of the drug.

Kenneth B. Raper and Dorothy F. Alexander, of the Northern Regional Research Laboratory at Peoria, Ill., reported to the American Association for the Advancement of Science at St. Louis, on March 29, that, after exposing to ultraviolet radiation a culture of one of the more promising strains, they had isolated a single new strain that gives a relatively high yield of penicillin with at least half of it in the desired X form. This is in contrast to a yield of from one-seventh to one-fifth of penicillin X in the product of many strains previously tested. The evidence is not conclusive that the variation or "mutation" in the fermenting capacity of the new strain is the result of irradiation, but this is probable.

Medical research has proved that in some cases penicillin X has shown strikingly superior results compared with other drugs or with the commercial penicillin that was mainly G. It proved highly effective in treating gonorrhea cases that did not yield to sulfa drugs, also in certain types of pneumonia and in streptococcus infections that resist other treatments—including commercial peni-

cillin. Penicillin X won in a case of bacterial endocarditis in which commercial penicillin had failed. Another advantage of the X form is that it does not seem to be eliminated as rapidly as the other penicillins, and therefore tends to check infections more effectively. Cultures of the new mold are now available to commercial producers who wish to supply the more potent penicillin product to physicians and hospitals.

"Straw" berries

"WHY DO they call them strawberries?" asked Mary Louise, looking up from the strawberry shortcake with her lunch. "Because that's what they are," answered the Old Timer, promptly. "Another reason," he added hastily, as she prepared to throw the book she was reading, "is probably because the 'runners' or vines look like scattered straw. Straw is used to protect the plants from cold, too, though I've seen pine needles used—"

"Never mind," said Mary Louise. "This book says Roger Williams was fond of strawberries—I was just looking up 'strawberries' in it. He wrote that one of his English friends declared that while God could have made a better berry, He never did!"

"Williams was writing of the wild meadow strawberry, which is plenty good," said the Old Timer. "But, believe it or not, our modern strawberry came from Europe, even though the plant is a native of North America. What happened is that both the meadow strawberry of the eastern United States and the beach strawberry of the Pacific Coast found their way to Europe—and married there. It's their children who came back to start our strawberry industry. In the past quarter of a century or so, plant breeders have been taking a hand. Dr. George M. Darrow and his associates of the Bureau of Plant Industry, Soils, and Agricultural Engineering, for example, have grown and tested out a quarter of a million hybrids, selecting about a dozen for naming and distributing. One of them, the Blakemore, has become the leading strawberry variety of the United States. It—"

"That's enough for one lesson," Mary Louise decided, carefully picking up the last crumbs of the strawberry shortcake. "I already know why they call it strawberry *short*cake: it's because there's never enough of it!"—JOHN A. FERRALL, PISAE.

Learning by doing

"LEARNING to do by doing" is one of the biggest benefits of the AAA conservation program, a farmer down in Washington Parish, La., writes in to say. Each man's farm becomes a demonstration plot and proves to him the advantages of conservation practices. Today, there are more than 3½ million such demonstrations under way throughout the United States—each one adapted to the needs of the individual farm and area.

In the Deep South, the writer of this unsolicited letter (on file in the State office) improves a tung orchard "immeasurably" with terracing, minerals, fertilizer, and cover crops. Up in New England, a dairyman finds he can get more milk and has to feed less grain through a pasture-improvement program. A wheat grower in the West saves his land from wind erosion by strip cropping. In the Corn Belt a farmer contours his fields, lessens erosion, and gathers a larger yield.

All these farmers are demonstrating that there's more efficiency in conservation farming and that they can build healthy, productive land, which in turn means strong, healthy people.

"The cost of such a program would have been prohibitive without Government aid," says our Louisiana farmer, after describing the conservation work on his orchard. "The philosophy of the AAA program is sound. It makes learning possible by first making possible the doing."—LUCIA BROWN, PMA.

Hens' progress

DID IT ever occur to you that the hens of the U. S. require 320,000 tons of calcium a year properly to package (shell) the eggs they lay? That's what Dr. H. R. Bird, of the Department, estimates. Phosphorus, manganese, and several other minerals also are essential to the hens' well-known industry—egg production.

Dr. Bird's estimate explains why hens should be given plenty of calcium, including crushed limestone and oystershell, in their diet. When the hens fail to get sufficient calcium for egg production, they unhesitatingly take it out of their own bones. After using a quarter of the calcium in their skeletons, they begin to lay thin-shelled eggs. If the poultryman doesn't then take the hint, laying stops altogether and a hen strike is on.

The concentration of calcium in the blood of a laying hen is about twice that found in immature pullets or in roosters. The hen has a shell gland containing enzymes which almost magically enable it to produce limestone walls around egg contents, using blood consituents in the process. But cut down on the shell material in the diet and the hen eases off production.

Average egg production per hen in the U. S. has increased by more than 2 dozen a year and the number of cooperating States has increased by 13 since the National Poultry Improvement Plan was established in 1935. The USDA now cooperates with 47 States. Farmers and poultrymen now obtain a large proportion of their chicks from hatcheries participating in the plan. These have the stupendous capacity of 235 million eggs, or 44 percent of the Nation's incubator capacity. Excellent progress also has been made in the eradication of pullorum disease from flocks of participating breeders.

Participants are authorized to use appropriate official designs on containers of chicks or hatching eggs they sell. Full information about this plan may be procured from the Bureau of Animal Industry.

Brief but important

WFO 144 amended: An amendment, effective April 2, to WFO 144 reduced wheat inventory limits of millers and mixed feed manufacturers in 15 States from 45 to 30 days, to increase market supplies of wheat for domestic consumption and export. On April 19 this order was further amended, effective May 1, limiting wheat inventories of millers and *food* manufacturers in all States to a 21-day supply. Ask Press Service for 696–46 and 849–46.

Award to Dr. Stoutemyer: Vernon T. Stoutemyer, of the U. S. Plant Introduction Garden, Glenn Dale, Md., has been awarded one of the annual Vaughan Research Awards of $500 for his scientific paper on the effects of certain growth-regulating chemicals in the rooting of plant cuttings. He received the award at the annual meeting in St. Louis of the American Society of Horticultural Science. Dr. Stoutemyer is also the designer of a fluorescent light box, for starting seedlings and cuttings, recently announced by the Bureau of Plant Industry, Soils, and Agricultural Engineering.

GS summer session: The Graduate School summer program, June 10 to August 16, provides 51 courses to give forward-looking Federal workers a chance to continue their education. Students may register any time before June 10, all courses being open to World War II veterans, who should apply to the regional office of the Veterans Administration as soon as possible for a certificate showing the amount of educational benefits to which they are entitled. GS will accept this "letter of entitlement" in lieu of tuition fees and charges for books and supplies. Summer bulletins will be available after May 20 in the GS office, 1031 South Building.

Notable award: The food campaign spearheaded by USDA has received an award from the American Public Relations Association for outstanding achievement in 1945. A silver anvil, symbolizing the "Anvil of Public Opinion," was presented to the Office of Information at an award banquet, March 30, and displayed in the Administration Building Patio. To George Rowe, of Inf., and his small staff of three, goes much of the credit; George was the special assistant to the Director of Information, who had responsibility for the success of the Food Fights for Freedom informational campaign.

Writing hints: A year or more ago the editor of *USDA* offered to try to send reprints of his talk before the thirtieth annual meeting of the American Association of Cereal Chemists to those who wanted them. The meeting was in Minneapolis, May 1944. The talk appeared in the Transactions of the Association, Vol. III, No. 2, January 1945, and was entitled "They Understand Not One Another's Speech." Reprints were exhausted, however, before many requests could be supplied. Recently the material has been reprinted and separates are again available if you care to address T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C.

Farm advice for veterans: Local personnel of the *USDA* and cooperating State agencies are ready to help veterans interested in farming. First stop for the farm-bound veteran should be the county agent, who can answer questions or refer him to farm agencies in special fields. In most farm counties, also, veterans can get practical advice from farmers on the county veterans' advisory committee. Other local sources of advice and subjects on which veterans can get information in some counties are described in a press release, which also lists publications available from the Office of Information, Washington. Ask Press Service for 693–46.

FAO—An Interpretation: The lead article in Land Policy Review, Spring 1946, bears this title, and is by Gove Hambidge, now of the Food and Agriculture Organization. This quarterly is published by the Bureau of Agricultural Economics and is recommended to your attention.

People: Gertrude Warren, specialist in Extension Service's 4–H Club organization work, has been on a visit to Cuba to work with Cuban Government officials and study the organization of Cuba's somewhat similar 5–C Clubs. From there she went to Jamaica . . . Morse Salisbury, former USDA information director, has left UNRRA to head information for the Committee for Economic Development, but is just now on loan to the Famine Emergency Committee . . . Wallace Kadderly is now with station KGW at Portland, Oreg., and Al Bond with KIRO in Seattle; both were formerly with USDA Radio Service . . . Florence Reynolds, former coordinator of food-use programs for Office of Information, is now assistant director of public relations for the Food and Agriculture Organization.

Lucy H. Paul: "Polly," as she was known to her friends and coworkers in the USDA, died suddenly in New York City on April 2. Coming first to the Department in 1915 as a clerk in the Office of Public Roads (then in USDA), she rapidly became an unusually able secretary. From 1926 to 1944 she served as secretary to successive Directors of Information. Two years ago she left USDA to continue working with Morse Salisbury when he became head of information in UNRRA, and a few months later transferred to the Brooklyn Navy Yard, where she was working at the time of her death.

Extension abroad: Your attention is directed to a conference report on The Contribution of Extension Methods and Techniques Toward the Rehabilitation of War-Torn Countries, covering many nations in Europe and Asia. It is available from Extension Service.

Rural public health program: Dr. Frederick D. Mott, Senior Surgeon, Public Health Service, and Chief Medical Officer of Farm Security Administration, delivered a mighty good address March 30 at the National Conference on Rural Health, sponsored by the American Medical Association, in Chicago. Apply to him for mimeographed copies thereof. The title: A Public Health Program for Rural Areas. In this connection, see also the report on the Experimental Health Program of the USDA, issued as Subcommittee Monograph No. 1 by the Senate Committee on Education and Labor, January 1946.

Farm real-estate market dangers: Farm real-estate values rose 13 percent in the year ended March 1, 1946, *7 percent of it in the last 4 months.* These values now stand 71 percent above the 1935–39 level, an increasing number of farms being resold after brief ownership, and speculation seems rife. Secretary Anderson warns against inflation. Bureau of Agricultural Economics has reported on the subject; you can get release 712–46 from the Press Service, if you want the facts compactly stated.

Fats and oils crisis: The world crisis in fats and oils is "one of the most difficult and painful food problems confronting the United Nations." On April 10 Secretary Anderson issued a call for world aid in meeting it. He appealed by cable to the food and agriculture ministers of 10 nations. World supplies will remain short this year and probably next. In 1946 Americans will probably get around 6 pounds per person below the 1935–39 average and at least 8 pounds below demand at current prices, meaning 42 pounds per person of butter, margarine, lard, and other shortening and edible oils. See press release 959–46 and the April 10 Fats and Oils Situation. Get them from Press Service.

Sugar-plant research: Researchers under Dr. Elmer Brandes, of the Plant Industry Station, Beltsville, Md., aim at control of weeds that interfere with sugarcane production, development of improved sugar-beet varieties, adaptation of the hybrid-vigor principle to sugar production, and the introduction of superior sugar sorgos. Considerable success has been achieved in attainment of all objectives; ask Press Service for 341–46.

Useful commodity studies: The Commodity Development Division of the Northern Regional Research Laboratory, at Peoria, issues processed monographs of extraordinary value. Those at hand are: Wheat, Its Products and Uses; Corn, Its Products and Uses; Corncobs, Their Composition, Uses, and Availability; Grain Sorghums, Their Products and Uses; Soybeans, Certain Agronomic, Physical, Chemical, Economic, and Industrial Aspects; Alcohol from Agricultural Commodities. Procure them from J. H. Shollenberger, Chief of the Division above mentioned, who, incidentally, thinks the Bureau of Agricultural Economics' Situation Reports among USDA's most useful current publications.

Protein nutrition: Those interested in clinical aspects of protein nutrition and the work of Co Tui, M. D., the New York University research worker who devised the method of treating peptic ulcer with protein hydrolysates and dextrimaltose, will find more on this general subject in his lead article in February Journal of the American Dietetic Association. In the same issue of the same journal Barnett Sure, of the University of Arkansas' Department of Agricultural Chemistry, gives the low-down on the biological value of food yeast proteins. He discusses their possible role as supplements of cereal grain protein from a global standpoint.

FSA loans: Farm Security Administration is now receiving three applications for every loan it can make. It estimates that more than 21,000 veterans will want farm-operating loans by late spring, though only 5 percent of their applications can be filled. FSA is authorized to lend 50 million dollars for farm purchases this fiscal year, of which half is specifically earmarked for veterans, though some may also get loans from the other half. The full sum would make about 8,000 loans, and applications are already at hand for these loans from 9,800 veterans. FSA simply lacks funds to meet the present demand for either farm-operating or farm-purchase loans sought by veterans.

Department agencies: During March, *USDA* Document No. 2, Constituent Agencies of the U. S. Department of Agriculture, was processed in a little more legible and attractive form. Some very slight revisions in text were also made. For copies, address T. Swann Harding, Office of Information, or phone Miss Glick, Ext. 5451.

Fat salvage: It is still vitally important to turn in used household fats, for the need for fats and oils is increasing rather than decreasing. As good a slogan as any might be: Turn in Used Fats and Help Prevent the Soap Shortage. For the more fat, the more soap.

Polish science awakens: A harbinger of successful reconversion in Europe has been received in the Department Library. The first issue of the Polish Industrial Chemical Journal (Polish title: Przemys Chemiczny), one of the important research journals in its field, has just come through the courtesy of Dr. Ignace Zlotowski, of the Committee for Rehabilitation of Polish Science and Culture. This copy was presented to him and bears the dedication, "To our dear colleague with wishes of a fruitful work and cooperation." An interesting side light revealed by the first number of this journal, which reappeared in August 1945, is a fairly extensive list of chemical products which are now being manufactured in Poland.

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FOR MAY 27, 1946

Food program in States

M. L. WILSON, Director of Extension Work, reporting on State Extension activities under the Emergency Food Program, in a letter dated April 29 to N. E. Dodd, Under Secretary, said in part:

All State Extension Services are making the Emergency Food Program the number one item in the weeks immediately ahead. Reports indicate organized educational and informational programs are developed and functioning efficiently in practically all counties with peak of efforts just being reached. . .

Characteristic of reports is indication that good cooperation in this effort on the part of all Department agencies prevails. Extension efforts are coordinated with other agency efforts through USDA Councils. Extension is providing most of the educational materials and facilities required in the program. They are also working closely with other organized groups such as schools, churches, PTA, women's clubs, civic organizations, farm organizations, and the like.

Maximum use of radio and press is characteristic. Extension is using its regular radio time predominantly on Emergency Food Program. Also providing script, spot flashes, sample 1,000 calorie diets, and similar educational materials and leads to other radio outlets. Likewise, a steady flow of news releases are being provided to daily and weekly press both from State and county extension offices.

Utah building boom

RURAL HOME building is booming in Duchesne and in Uintah Counties, Utah. The editor visited there recently with Mrs. Effie Smith Barrows, who has had charge of Utah's extension service program in rural housing for more than two decades. Aside from getting stuck in Provo Pass during a blizzard because the car's merry-go-round ran down, the visit was instructive and inspiring.

Superficially villages like Vernal and Roosevelt in these counties are not much to see. But the folk have tremendous local patriotism, regard theirs as God's country, and are building new homes like nobody's business. By some hook or crook they have wangled their materials and, as for help, they themselves are oftenest their own builders, men and women who have never built before and have only Federal or State agricultural publications and Ext. advisers to go by.

They go up into the mountains and get lumber, bringing the logs down to custom sawmills which process them, taking half for sawing them. But the families get back the lumber made from the very logs they brought in themselves. Beautiful sand and gravel are locally available, and the lumber is dried before using.

Like most of us who attempt to design or build our own homes, these people tend to make many mistakes—to place the bathroom so that other rooms must be crossed to get to it, to provide insufficient storage space, to use joists that are too weak, to neglect the opportunity to put in a big "picture" window facing a colorful Utah hill, to make rooms too small, or to put the narrow end of the house where the wide end should be. These and many other errors they are persuaded to avoid by alert Ext. workers.

Many of the new homes seem small and humble enough—some of course are rather pretentious—but the so-called "homes" from which the occupants are moving are tragically inadequate. Some exteriors are of brick or of cinder block, as well as of shingle, plain weatherboard, or linseed-oiled logs placed vertically rather than in the classic horizontal fashion. Sites are often picturesque in the extreme. Interiors are conveniently arranged and attractive.

So anxious are these people to build that a woman herself will take a butcher knife, a saw, and a hammer and do lots of things for which most of us would have to depend upon expert carpenters. Women not only paint or decorate, but put in flights of stairs, help lay floor boards and so on, while the men work on the farm. Families draw their own plans, tack them on the walls, continue the building or change the drawings as necessity dictates. The boom extends beyond the lines of the counties mentioned but is especially lively in them. To Ext. and to good old Farmers' Bulletin 1738 goes much of the credit.

Information glut

IT IS very educational for bureaucrats to visit other bureaucracies than their own. They learn to see themselves as others see them. Thus information workers become consumers rather than dispensers of their commodity, and see the entire process from a new angle. One conclusion you reach under such circumstances is that many agricultural workers tend to give inquiring visitors too much rather than too little information for the purposes in hand.

You ask a few simple questions and you need only a little information, preferably given in a few broad strokes covering basic essentials and major trends. Suddenly you find yourself surrounded on all sides by enormous quantities of data, some fired at you by word of mouth too rapidly for you to absorb, some vomited from huge files, some in the form of monographic publications and highly technical bulletins. You are mentally swamped. You begin to suffer intellectual indigestion. Your basic purpose is defeated.

After having experienced this several times, the thought arises: Why do we not first of all seek to ascertain the needs of the visitor by a bit of skillful questioning? Possibly these needs are relatively simple and involve only a casual story he wants to write or a bit of fact he needs for a specific purpose. Possibly also the visitor may want information in great variety and quantity, with a wealth of detail, but if he does not, why swamp him? Why talk him insensible?

It seems the part of both wisdom and courtesy to ascertain the inquirer's precise needs and to fill only his requirements. That skill appears to be quite as essential as the ability to supply facts in profusion. Of course we all like to talk about our specialties, we find them endlessly interesting, and we tend to think everyone else will regard them as we do. But there is a limit and we undoubtedly do a disservice to many inquirers by swamping them with unneeded material either by mail or in person.

USDA and FAO: Secretary's Memorandum 1158, April 10, explains the coordination of USDA's relationships with the Food and Agriculture Organization via the Office of Foreign Agricultural Relations. This will be done with the approval of the Department of State.

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The Golden Hoof

THE LIBRARY sends us an interesting comment received after circulation of the book, The Golden Hoof, by W. Kupper.

A most interesting account, and I believe a very factual bit of information. I, too, feel sorry that the picturesque wool freighter is gone. I, while not too ancient, am listed among those who freighted the last wagon loads of wool out of western Wyoming. The big freighters with their jerk-line skinners had already gone before. We give up slowly and die reluctantly.

I'd still enjoy getting atop a 20-sack load of wool and pulling the lines over a good 4-horse team. But I no longer hope to hand-shear 100 head of western range ewes in one day. That was hard work, a past part of my life I'm willing to have give way to power shearers. Anyway, they do a better job.

The letter came from Ira Clark, Soil Conservation Service, Pocatello, Idaho.

Better rubber trees

ARA JUNGLE EXPLORERS and the Ministries of Agriculture of Colombia and Peru have found rubber trees of apparently great productivity and disease resistance in the upper regions of the Amazon Valley. The ARA plant specialists, Richard Evans Schultes, in Colombia, and Russell J. Seibert, in Peru, have been exploring these wild regions for 3 years. Some of these outstanding trees promise, after testing, to prove better than any plantation trees now providing most of the world's rubber.

This part of the Amazon Valley has long been known to grow higher yielding forms of the Pará rubber tree (*Hevea brasiliensis*) than the alluvial areas 2,000 miles downstream. By following the native rubber gatherers and taking advantage of their knowledge of the best "milkers," the ARA explorers have brought back budwood from the most promising trees for testing in nurseries at Tingo María, Iquito, and Iberia, Peru; Belém, Brazil; Turrialba, Costa Rica; and Leticia, Colombia.

Dr. R. D. Rands, Bureau of Plant Industry, Soils, and Agricultural Engineering, says the U. S. and South American scientists make note of the characteristics of trees from which latex is harvested—particularly such factors as yield in comparison with size of tree and freedom from leaf-blight disease. They sometimes even harvest budwood by shooting twigs out of the tops of the tall, wide-crowned trees with a rifle. The explorers must give the cuttings good care and propagate them as soon as possible.

Farms and personality

THE FOLLOWING conclusion and summary of a study entitled "Some Environmental Factors in Relation to the Personality Adjustments of Rural Children" will probably interest a great many USDA people. The article appeared in Rural Sociology for December 1945, and is by Leland H. Stott, Merrill-Palmer School, Detroit, Mich., to whom you should apply for reprints if desired.

The results of this study suggest that certain circumstances and conditions of rural living are definitely associated with the achievement of desirable personality adjustment by the child. There appears to be something about living on a farm near enough to the village or community center, or under circumstances which permit the child to attend the village school, which is relatively favorable to his psychological well-being. The likelihood seems strong that among the most important of these circumstances is the economic, cultural, and social status of the child's family. However, even the more isolated farm family situation, where the child must attend the one-room school, was not particularly unfavorable to the child's adjustments in comparison with the other residence groups except the village-school farm group. The most unfavorable situation, on the other hand, was to belong to a family of the lowest occupational group—the family of a common laborer in a farming community. Undoubtedly the economic factor was basically important here. These circumstances and conditions of living in some instances probably affect the child's happiness directly. In other instances family life—the interpersonal relationships within the family—are affected, which in turn may profoundly affect the personality of the growing child. The need for intensive research in this important field is strongly indicated.

Work improvement

PROBABLY nothing pays us bigger dividends, or receives less attention from us, than job improvement—learning the best way to do our work. Jobs are improved by analyzing the facts connected with them and synthesizing the new method with an open mind. An open mind? Unfortunately a good part of the average employment manager's time has to be spent trying to convince the workers that new ways of doing tasks are actually to their advantage.

The late Dr. Luther Gulick once asked a boy attending a school athletic meet if he was entering the next event, swimming under water. The boy said that he was not; that while he could swim under water he had not trained for the event. Dr. Gulick took out his watch and asked the boy to see how long he could hold his breath. The test stood at 56 seconds. "There are people who can hold their breath 3 or 4 minutes," said Dr. Gulick. "You don't know how to do the trick. Breathe deeply and slowly several times, overoxygenating the blood, and we'll test you again." The boy followed instructions and it was found that he could hold his breath a full 2 minutes. Dr. Gulick then took him to the swimming tank and watched how many strokes he averaged to the minute. It was 16. "Now," he told the boy, "enter this race. Dive and hold your breath until you've made 24 strokes—a minute and a half. You know you can do this." The boy entered the race, did as directed—and won it!

It is easy to believe this and similar stories because we see illustrations all around us. For example, if you should call in a group of persons with no previous experience in office work and put them on a simple job, you'd find as much as 75 percent difference in the mere quantity of output, to say nothing of quality. But if you show them how to do the job, the difference immediately drops to as little as 10 percent between them. So learning to do your job *efficiently* is a very important thing.—JOHN A. FERRALL, PISAE.

Applied common sense

CIRCULAR 740, Cold Storage for Apples and Pears, by W. V. Hukill and Edwin Smith, is one of those refreshing illustrations of the fact that science is not only organized knowledge; it is quite often applied common sense. The circular is about the cold storage phase of the apple and pear industry of the Pacific Northwest, particularly that of the Wenatchee-Okanogan, Wash., district. Holding fruit in cold storage in producing areas rather than at the market terminals or at points in transit has, of course, become rather common practice. But the job must be done right, for the reputation of the fruit depends on the condition in which it reaches the consumer. Hukill and Smith point the way to make sure of this; the latter, a horticulturist, tells the growers *what* to do; the former, an agricultural engineer, tells them *how* to do it!

They surveyed the storage establishments and equipment of the region and soon found that a good bit more was needed. While planning for the future, they took time to consider the present and came up with a very practical suggestion. "Harvest your *best* fruit at the right time," they told the growers. "Give it the benefit of full refrigeration at once, so that you know it will keep. That will be your fruit for the *late* market. Next, earmark fruit that can't be handled and cooled promptly, though

it will get attention later. That's your *intermediate* market fruit. Finally, don't even try to cool the rest—it will be clear to you that you can't anyway. Use that for *early* market—get it out promptly."

That's Hukill and Smith's commonsense plan for making sure that the consumer—and that means *you*—will get good eating apples and pears throughout the season. In the past shippers have merely been tearing into their pile to fill orders as received and naturally sent out an "Irish stew" mixture so far as potential keeping quality and eating quality were concerned.

Anthelme Brillat-Savarin

THE WORLD'S greatest gourmet, part of whose name was adopted by a well-known chain of restaurants, was appropriately enough a native of Belley, near Lyon, France. But he was never a cook, never ran a restaurant, never seems even to have invented a dish. He was a gentleman legally (for he owned an inherited, entailed estate), a charming host, a facile writer, a lawyer, and a sound judge of food. He was a follower of the Marquis de Lafayette and sat so far to the right of Parliament that his name appeared among those proscribed by the Committee of Safety, so he fled to the United States.

Here he played second fiddle at a Broadway theater and took his meals at a pleasant tavern which has now been replaced by a huge office building—with a Savarin restaurant in the basement! Brillat-Savarin traveled a great deal and, in October 1794, a well-to-do Quaker named King, who knelt on the forest floor each time he shot a wild turkey and asked a blessing upon the soul of the departed, took him to the home of Farmer Bulow, near Hartford, Conn.

There Brillat-Savarin was entertained on a brisket of corned beef, a stewed goose, a leg of mutton, and a couple of demijohns of hard cider. Later he returned the compliment by feasting King and Bulow on squirrels stewed in Madeira and partridge wings baked in waxed paper. When the Terror ended, Savarin returned to France where he ultimately became councilor of La Cour de Cessation (Supreme Court). Throughout the remainder of his life he was always writing little gastronomic essays, invariably spelling "gourmand" when he meant "gourmet."

Nor did he ever forget those fine domesticated dindonneaux (turkeys) of America. When he was 70, his physician persuaded him to publish his little essays on food, which he did, as La Physiologie du Goût. Nor did he forget Farmer Bulow therein. For meditation VI, No. 38, tells about his visit to this farm. (See also p. 3, Some Landmarks in the History of the Department; get it from the Bureau of Agricultural Economics.)

Savarin's other books—on political economy, on the Supreme Court, and on the history of dueling—are forgotten, but not The Physiology of Taste. Only a year after it appeared he promised, as a good politician, to attend a ceremony commemorating the execution of Louis XVI, whom he detested—even if the cold he had turned to pneumonia and he died. He attended as promised. The cold did turn to pneumonia. And Savarin died.

Cheating cheaters

ELKO COUNTY, NEV., has as many beef cattle as any county in the U. S. So Charles E. Fleming, range management specialist at the Nevada Agricultural Experiment Station, in Reno, told us the other day. But, speaking of Nevada soil, he said that vast stretches in the southern part of the State were useful only as exercise grounds for jack rabbits and to hold the rest of the world together—or apart, as the case may be!

Then Fleming launched into one of his favorite subjects, "cheat grass" (locally alias bronco grass, military grass, downy chess, and so on)—an invader that reached Nevada from the Mediterranean region about 30 or 40 years ago and was first regarded as a weed to be exterminated if not controlled. Here, on this barren land, it began to spread and, within the last 15–20 years, it has completely changed the character of much of the State's range-land cover.

Fortunately it didn't prove to be quite as much a cheat as its somewhat deprecatory name implies. It turned out to be about like many perennial grasses in nutritive value in the spring and proved high in protein—22 percent or so—and many an annual unit-month of carrying capacity has fortunately been produced by its riotous spring growth.

Another invader, halogeton, which somehow wandered into Nevada's barren, dry lands from lands quite as barren in Siberia, has proved much more of a cheater, for it contains 22 percent of oxalates, in the form of calcium, sodium, and potassium salts, and a pound or a pound and a half of it will kill a sheep. As Fleming remarked, sheep already seem to have enough will to die and disinterest in life not to be encouraged by the presence of a poison weed they never hesitate to eat.

When this toxic invader appeared, about 1932, the botanical texts offered little help. It is a prolific seeding annual which rapidly has covered thousands upon thousands of acres. Sheep actually display a preference for it, in their slightly stupid way. Now, as it has spread on the dry desert range, it offers a real problem and, unlike cheat grass, can scarcely be expected to turn out a blessing in disguise. The more often the plant is subjected to snow and rain, however, the less liable it is to cause poisoning. At least two-thirds of the oxalate content may be lost during the melting of one snowstorm.

Brief but important

Speculation in agricultural commodities: The Secretary on April 19 issued a revision to Regulation 1545, Speculation, which all employees should know. It says: "Because of the possible effect of certain Department programs on market prices and futures trading, speculation, either direct or indirect, in any agricultural commodity is wholly prohibited in the case of officers and employees of the Department concerned in any way with the administration of acts regulating trading in commodities for futures delivery, programs for the purchase or sale of commodities, price support programs, commodity loan programs, or other programs which directly affect market prices of agricultural commodities."

New PMA dairy director: Samuel W. Tator, who has become director of the Dairy Branch, Production and Marketing Administration, was for 13 years Federal milk-marketing administrator, first for the Providence, R. I., area and since 1934 for the Boston area. After graduating from the University of Pennsylvania, Mr. Tator took graduate work there and later became a faculty member. In 1917 he joined the Federal Trade Commission, where for 4 years he studied the accounting methods of the meat and oil industries. Later he became director of economic research for the American Farm Bureau Federation, investigating farmers' cooperative-marketing organizations and aiding their legislative programs. Mr. Tator succeeded Tom G. Stitts, who resigned to enter private industry.

Bentley Mackay: Formerly assistant distribution control officer in the Office of Information, Mackay writes us via a cryptic APO address from Brazil, where he is with the American Consular Service. He hates his official title of "agricultural adviser"; says he is just a common, garden variety of agricultural reporter and writer; also that the *USDA* and other material, including Department Yearbooks, have supplied just about all the answers to questions people ask him in Brazil.

Famine and Humanity: Under this caption the New Statesman and Nation (London) discussed the world food crisis, March 16 issue. It believed the outlook to be none too sanguine. Since 1939 the world's population has increased 100 millions, 40 of them in India

alone, and world food production has dropped sharply. The Orient's wheat need will be larger for some time, because rice growing has been dislocated in the chief producing countries. It will be long before Europe's losses in machinery, fertilizer, seed, and labor can be made good. Then the journal said Britain should place at the disposal of UNRRA and the military government of Germany a substantial tonnage from her already shrunken food stocks. It said the U.S. should not be expected to give all the food, and declared that bread was being wasted in the United Kingdom. The U.K. must see to it that no nation is compelled to accept a Belsen diet. If Britain can tighten up, so can we, and more.

Poultryman Kinghorne: J. W. Kinghorne has been named assistant director of Production and Marketing Administration's Poultry Branch. He is a native of Cumberland, Md., a graduate of the University of Maryland when it was good old "MAC," and first entered the Department in 1912. In 1920 he helped organize the National Poultry Institute and became its secretary-treasurer. He returned to the Department in 1933 as a marketing specialist in the Agricultural Adjustment Administration. The editor remembers him when he entered MAC. His nickname was "Baldy." But that was only because his head had been shaved as a sequel to a fever, and not for any other reason, for then as now he was heavily and bushily thatched, or are we thinking of another fellow?

Lorin H. Bailey: Bailey recently retired from the Procurement Division of the Treasury Department, but he was a long-time USDA employee. Born 70 years ago, at Beloit, Ohio, he entered the old Bureau of Chemistry in 1907, working with Doc Le Clerc (since retired), J. F. Breazeale, who subsequently went to the Arizona Agricultural Experiment Station, and others, on cereal chemistry problems. He had part in some of the earliest baking tests, using soybean, peanut, and other such flours supplementary to wheat flour. For a long time we used to call him the Bureau's baker. He transferred from the Department only 2 or 3 years ago.

Taeusch to Germany: Dr. Carl F. Taeusch, Bureau of Agricultural Economics, left Washington for Berlin, May 1, where he became assistant chief of the Food and Agriculture Branch, Quadripartite Council, composed of representatives of the U.S., Great Britain, France, and U.S.S.R. His work involves studies of German food production, resources, supplies available to nonfarm people, and imports required in occupation zones A former editor of Harvard Business Review, he had been with USDA since 1935, and headed BAE's Division of Program Study and Discussion. He is a native of Ohio who did undergraduate work at Princeton and graduate work at Harvard. He taught at Chicago, Tulane, Iowa, and Harvard Universities.

A good cup of coffee? In an article on instant coffees, in March 29 Printers' Ink, Eva M. Houseman tells how one manufacturer arranged to send questionnaires to farm women asking whether soluble coffees had flavor comparable with that made in the home fresh from coffee berries. The company itself felt sure freshly brewed coffee properly made in the home had better flavor than their instant product, but the farm women disagreed! Most of them said the soluble coffee tasted as well as that they brewed themselves. Then the manufacturer concluded that this evidenced the poor quality of foods served in farm homes generally. Who wants to argue that? Can farm women brew a good cup of coffee or can't they?

Child health: If we may make a bow to another Department, we should like to commend to your attention Children's Bureau Publication 294, recently issued by the Department of Labor, entitled "Facts About Child Health." It answers all sorts of questions about children, how they live, move, and have their being, and what they require for survival in health.

Postwar farm adjustments: Peacetime Adjustments in Farming (MP 595) is a timely publication. Prepared by the Interbureau Committee on Postwar Programs, in cooperation with the Land Grant Colleges, it is based on 48 reports from the State Production Adjustment Committees. Part I consists of a general summary and conclusions, Parts II and III of suggested adjustments, in more detail, by commodities. Apply to the patio desk, Office of Information.

Crisis in Russian Agriculture: Under this title the London Economist for March 16 notes that the liberated areas of the U. S. S. R. are devastated indeed. Thousands upon thousands of tractors and harvester-combines were destroyed and millions of cattle were lost. Not as much by far was evacuated from the invaded lands as was supposed. The liberated areas comprise 40 percent of the sown acreage of all collective farm land in the Soviet Union, 37 percent of the land under grain, 40 percent of the cattle, 45 percent of the horse, 60 percent of the pig, and 28 percent of the sheep and goat population. The soil has been utterly impoverished; precipitous declines in yield have occurred. Collective farming has lost technical foundation and coherence. The way back to individual farming is barred. Recovery cannot occur until the State makes good losses of equipment and livestock. Meanwhile Russia must rely principally upon the farm output of its eastern provinces.

PMA Field Service Branch: Note this from PMA Administrator Shield's memorandum of April 5: "The director of the Field Service Branch has the direct responsibility for formulating and developing agricultural conservation programs of the Production and Marketing Administration. In addition, I look upon him as my personal assistant charged with the responsibility of helping the Administrator in the administration of our programs in the field—through the PMA State and county offices. It is the policy of this administration to administer all programs through these State and county offices, unless it is impracticable to do so. When programs cannot be administered in the field through these channels, a specific showing of the necessity to operate them some other way will be required."

Tribute to Roberta Roberts: Miss Roberts, secretary-treasurer and chief clerk for the Agricultural Adjustment Agency in Marion County, Ky., was specially honored recently at a supper meeting of the Farm Bureau for her courteous and efficient service to the county's farmers for the past 10 years. She received two $50 and five $25 victory bonds from the Farm Bureau, Soil Conservation District, AAA community committeemen, past and present members of the AAA County Committee, and friends; $11.50 in cash; and several personal gifts. The meeting was attended by 118 farmers and their wives.

Worth-while praise: Director of Personnel T. Roy Reid is proud possessor of a letter from Brig. Gen. C. T. Lanham, Information and Education Division, U. S. Army, in which high praise is given USDA employees who cooperated in the Army Educational Program. Said General Lanham: "The competence and the spirit of helpfulness which your personnel have so repeatedly brought to our assistance (preparing textbooks, giving expert advice, participating in programs) have been so characteristic that I wish it were possible for me to thank personally every one of the many individuals who have helped this Division so generously and so constructively during the past four years."

Radio schools: Les Schlup (Extension) just sent a mimeographed copy of Ken Gapen's (Information) letter to John Baker (Chief of Radio Service) on his March 11–27 trip, made largely to carry on radio schools at Tucson and Phoenix for the Arizona College of Agriculture, its extension service, and other USDA agencies. Ken also attended a regional meeting of the Agricultural College Editors Association at San Antonio. The editor of *USDA* heard Ken's radio schools praised in the highest terms while he was in Albuquerque. Customers and participants generally found them excellent.

A. E. Wight retires: Dr. Wight, Bureau of Animal Industry, retired April 30, at age 70, after 47 years of service in that bureau. For the past 18 years he has directed the successful Federal-State campaign to eradicate bovine tuberculosis, and for the past decade also has been in charge of a similar campaign against Bang's disease. His successful efforts in controlling livestock diseases have won for him wide recognition from prominent veterinary and other professional organizations.

FS appointment: Harold L. Mitchell, who started his Forest Service career in 1930 at the Lake States Forest Experiment Station, St. Paul, Minn., immediately after graduation from University of Minnesota forestry school, has succeeded J. Herbert Stone as director of the Central States Forest Experiment Station, Columbus, Ohio. For the past 3½ years Mitchell has done important work at the Lake City, Fla., branch of the Southern Forest Experiment Station, boosting wartime supplies of turpentine and rosin. He worked in a private research laboratory 1934–39, then reentered FS, making flood-control surveys with the Northwestern Forest Experiment Station, Philadelphia. Hobbies: Hunting, fishing, carpentry, gardening, Boy Scout work.

Processing frozen foods: MP 588, Instructions on Processing for Community Frozen-Food Locker Plants, issued recently, contains up-to-date information on this method of food preservation, in which there is increasing interest. Field people should write to the Office of Information; Washington employees can pick it up at the publications desk in the patio.

Top officials: The *USDA* abridged list of top officials of the Department, No. 5 in the mimeographed documents, is now revised monthly, new issues generally being available the first of each month. Room and telephone numbers have been added as suggested by the Secretary's Office. To get copies: In Washington, phone Miss Glick, Ext. 5451; in the field, write to the editors of *USDA*.

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USDA

FOR JUNE 10, 1946

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Pay Act of 1946

OUR BASE PAY goes up at least 14 percent beginning July 1 under the Federal Employees Pay Act of 1946, which the President signed May 24. Sponsors in Congress for the pay increase were Chairmen Downey and Randolph of the Senate and House Civil Service Committees, Senator Langer of North Dakota, and Representatives Jackson of Washington and Miller of California.

Employees in P, SP, CAF, and CPC grades—with a few exceptions—will get minimum increases of 14 percent or $250, whichever is larger. Where $250 would increase the present rate more than 25 percent, employees will get only 25 percent. Those now getting $9,800 will get only $200 more, as the $10,000 ceiling on salaries continues in effect. Employees paid prevailing wage rates are not covered by the Act.

The act provides double pay for holiday work and choice of compensatory time off or pay at 1½ times the basic rate for work over 40 hours a week. Pay increases under the act will not cause delays in within-grade promotions. Other minor adjustments are made. Your bureau personnel office will have full details.

Personnel ceilings are established under the act. Not more than 447,363 full-time Federal workers may be employed in civilian positions, outside the War and Navy Departments, after June 30, 1947. It is not known what effect, if any, this will have on the USDA.

Famine Campaign Round Up: Prepared in Production and Marketing Administration's Information Service and issued through the Department's Office of Information, this useful mimeograph rounds up famine-campaign activities all over the country each week and is issued on Friday. It goes to people on the Food Information Calendar mailing list. If you are not on this list, you can get copies of the round up by phoning or writing to the Publications and Distribution Control Office.

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PMA committees

ON MAY 2 Administrator Shields, of Production and Marketing Administration, announced that the State Agricultural Conservation Committees have been designated State PMA Committees. This was done in accord with the previously announced policy of broadening the authority of State offices for centralized program administration. Hereafter an endeavor will be made to appoint to the committees farm producers with definite experience in other phases of agricultural operation, such as distribution, marketing, and processing of farm products.

Mr. Shields also said:

> To make State committee action more representative of the opinions and experience of all factors in agriculture, we plan to make greater use of subcommittees or advisory committees. Food industry people, the agricultural colleges, and various other interested groups, along with farm producers, will be represented on these advisory committees. We intend to see that the State committee set-up is broadened and strengthened in every way possible to assist in efficient administration.

At the same time certain new personnel designations were announced for California, Georgia, Kansas, New Mexico, and Texas. See press release 962–46 for details.

New Solicitor

SECRETARY ANDERSON, on April 25, appointed W. Carroll Hunter as Solicitor for the Department, succeeding Robert H. Shields. Mr. Hunter was born in 1886 at White Hall, Md. He received the degree of Bachelor of Law at the University of Maryland in 1910 and was admitted as member of the Maryland bar in 1911. From that time until he became associated with the Department in 1933, he was engaged in the private practice of law in Baltimore, Md., with the exception of 18 months during World War I, when he served as a commissioned officer in the Field Artillery.

He first became affiliated with the Department as an attorney in the Agricultural Adjustment Administration, handling important litigation matters for that agency. In July 1942 he was placed in charge of all litigation and became responsible for the coordination and supervision of litigation work performed in the Office of the Solicitor after it reached the appellate stage. He was responsible for cases handled before the Supreme Court and, by virtue of his appointment as Special Assistant to the Attorney General, often handled cases falling under the jurisdiction of the Department of Justice. Several of the cases handled by him resulted in sustaining the validity of such acts as the Agricultural Adjustment Act of 1938, the Agricultural Marketing Agreement Act of 1937, and the Sugar Act of 1937.

The new Solicitor is an ardent fox hunter, and at the present time is also a student aeroplane pilot with 13 solo hours to his credit.

In Reno

WE ALL tend too quickly to say "divorce mill" when Reno is mentioned. But there are much more important things in Reno, for instance, the University of Nevada, with its attractive campus and buildings situated near an artificial lake and beneath snow-capped mountains, a truly lovely spectacle. Here also is the Nevada Agricultural Station which Samuel B. Doten has directed now for more than 30 years.

Finally we come to a courtly old gentleman of precise speech and cluttered office who turns out to be one of the outstanding meteorologists of all time in the field of snow surveying. He just drifted into snow surveying, he says, from a career of teaching Greek and Latin, as a result of a bet. He climbed a mountain near the campus and became interested in estimating the quantity of water that would ultimately be produced from the snow lying there, and his career changed forever.

Today James Edward Church, nearing the end of his active career, is internationally known and respected. Director Doten proudly shows the Certificate of Appreciation Church received from the Military Planning Division of the Office of the Quartermaster General for his

valued services during World War II. Church somewhat languidly deprecates the certificate, but his young secretary breaks in to say that he is far too modest about his achievements.

During 1945 Church went to Russia along with other U. S. scientists, and he tells with amusement how the Russian scientists at first disdained him because his degrees were in the classics, but later concluded he was a modern Leonardo da Vinci when an interpreter explained his development of snow-surveying methods which are now almost universally used. He began his work crudely with the crudest apparatus imaginable. But he has made snow surveying an accurate, reliable, and not too laborious method of providing essential information for agriculturists and others who must know how much water to expect when the snow melts.

Courtly, cultured, enthusiastic, he is the finest type of scientist, and it honors USDA indirectly that the experiment stations have such individuals on their staffs.

Hybrid corn

FORTY-ONE years ago George Harrison Shull, of Princeton, began his studies of variation in maize as affected by inbreeding. This led him to propose the procedure in corn production now generally covered by the term "hybrid corn." His own name for it was "a pure-line method of corn breeding," and so he titled his famous paper read before the American Breeders Association in Columbia, Mo., more than 37 years ago. He grew his last experimental crop of corn in 1916.

Of course, since corn is an hermaphroditic plant, it can self-fertilize naturally, but rarely does so. Hence, in a modern genetic sense, every plant in a field of corn as ordinarily grown is a hybrid. This basic fact about corn Shull discovered and reported in 1908. But, in producing what is today called hybrid corn, *promiscuous* hybridization of the ordinary field of corn is replaced by *completely controlled* hybridization in the production of hybridized seed. Shull tells the interesting story in Science for May 5, under the title, "Hybrid Seed Corn."

Therein he remarks that "there would be no hybrid corn now had there been no one else with vision, courage, enterprise, and persistence to carry on from where I left off in 1916," and he cites the following as among the many outstanding workers on the problem: Edward M. East, Henry A. Wallace, Donald F. Jones, F. D. Richey, Merle T. Jenkins, and W. Ralph Singleton. He also observes that one of the smaller hybrid seed corn companies now grosses more than a million dollars annually, that big companies gross ten times that much, and that the current money value of hybrid corn probably runs into the billions.

But read Shull's article and get the low-down. Meanwhile we note that May 1946 News for Farmer Cooperatives (Farm Credit Administration) carries an article by Thomas E. Hall, recommending that the cooperatives render the vast potential service to their members made possible by intensively supplying them with hybrid corn seed. Hall says: "Co-ops have just begun to scratch the surface in hybrid seed corn. The field of service to members is there . . . for the most part lying fallow."

Ohio county report

BUTLER COUNTY, Ohio—county seat, Hamilton, a town of some 60,000—is a populous but not extremely large (400 square miles) county, containing two other large towns besides Hamilton, and a rather highly organized and fairly prosperous farm group. Officially there are 2,900 farmers, but 1,800 would be a more nearly bona fide figure, with about 1,200 of low income. While there were at one time 400 Farm Security Administration clients here, draining away to industry and wartime conditions have reduced these to 80 or 90. The enterprises are mainly hogs and dairying, with a little poultry, livestock, and vegetable growing thrown in.

Gerald H. Huffman, recently returned from the wars, is county agent, and Norman C. Arnold, who came over from Columbus to replace him during his enforced absence, is his assistant. Huffman has been here 4 or 5 years, as has also Home Demonstration Agent Fannie Davidson. Thomas B. Foster, FSA county supervisor, has been here since his program began in the old Federal Emergency Relief Administration, on through the Resettlement Administration, and up to the present. He is by way of becoming a county institution, if he has not already attained this status.

Here Extension Service and Farm Security work in closest harmony. Their rooms adjoin in the post-office building, the communicating door is always open, and they genially purloin one another's desks. Not only Ext. people, but workers in Soil Conservation Service, an itinerant livestock specialist, and others as needed are called in for consultation when either tenant-purchase or rural-rehabilitation loans are under consideration. These clients lack collateral to get loans elsewhere, hence come to FSA.

Tom Foster is a small, graying, friendly man who likes people and just can't help it. His work is his life. Called on to aid in farm-relief work when FERA undertook operations in Ohio, he left his farm in a county adjoining to Butler and has never returned to the furrow. He is adviser, father confessor, and loyal friend to the entire farm community. Of Quaker stock, his yea is yea and his nay is nay, but being hard is out of his line.

His profound and oft-stated conviction runs to this effect: "FSA is not a loan agency. If you are interested only in borrowing money, go to a bank. The objective of FSA is to help human beings help themselves by using loans to establish themselves in sane, rational, scientifically planned farming." But his self-imposed functions are endless, and range from slyly fomenting appropriate romances to intercession for a client who, in a moment of weakness, looks upon the wine when it is red, propels a truck through a store window, and loses his driver's permit.

Just now Foster is trying to steer prospective GI clients around farm booby traps. For land is high. Farms are all but unavailable at any price at which a person can hope to buy them and come out on top. It takes mighty careful planning and wise advice to prevent disaster, and Tom, aided by the "united front" of all USDA workers in the county, is doing all he can to protect would-be farmers from the evil effects of growing inflation.

Possibly a few statistics will serve to illustrate the monetary side of Foster's activities. In 1945, the average total income of his tenant-purchase clients was $7,282; net $2,323; farm expenses $3,795, and living expenses $1,164. The comparable *first-year* average figures for this same group ran thus: Total income $3,227; net $748; farm expenses $1,827, and home living only $652. Compare and judge for yourself. But that expresses only a fraction of it all.

Tom Foster is a humanitarian, a fellow around whom others naturally group and for whom they want to do their best. His clients form voluntary social aggregations of self-helping and cooperating friends. He makes people gladly accomplish things they didn't know they could do. He utilizes to the full the specialized

talents of every available individual, whether USDA or not, toward the achievement of his objectives, the conservation of human resources, and the social and economic redemption of his clients.

Rural electrification

ON THE eleventh anniversary of the Rural Electrification Administration, Administrator Wickard announced that 45 percent of the country's farms were now electrified, as compared with fewer than 11 percent when REA was established, May 11, 1935. More than half the farms electrified since that time, and two-thirds of those electrified since 1939, are on REA-financed lines. Yet approximately 6 million American farmers and other rural people who want electric power still lack it.

During its history the total REA loan funds allocated approach 700 million dollars. Of this, $481,259,969 was advanced to borrowers to finance construction. REA borrowers have repaid $110,062,187 in principal and interest on loans, *almost 18 percent of which represented payments on principal in advance of dates specified in borrowers' contracts. Delinquencies—where principal and interest payments are more than 30 days overdue—amount to only $794,000.*

Power will lighten the farmer's work, make it more profitable, and give him conveniences and a higher living standard besides. The old-fashioned kerosene lamp seems doomed to become a high-priced antique or a museum piece.

Man with plan

ROYAL D. CROOK, recently retired county agent for Churchill and Lyon Counties, Nev., was a man with a plan. Twelve years ago he came to his job from irrigation agriculture in Utah. Here, on the Newlands irrigation project, the first established under the Reclamation Act of 1902, some hundreds of farmers, many of them disgruntled because they hadn't gotten rich quick (as the advertisements said) were raising alfalfa and milking dairy cattle to the exclusion of almost everything else.

The depression was at its height (or depth); no other USDA agencies were operating on the project; banks were failing all over; and wilt threatened to annihilate the alfalfa. Crook, however, knew how to meet farmers on common ground and understood the art of bridging the gap between research findings and practice. He studied his assignment and made a plan. That plan had just about been carried out when failing eyesight forced his retirement, February 1, still in his early forties, to do on 600 acres within the project precisely what others had done.

Crook threw the entire book of Extension methodology at his clients. He was an outstanding, all-around agent. He promoted cooperatives, better dairy barns, purebred dairy stock, cow testing, eradication of tubercular cows and of boarders from dairy herds, vaccination for brucellosis, establishment of permanent pastures, crop diversification, and less dependence on alfalfa. He had success all along the line, from the very start, when he called in Oliver F. Smith, of the then Bureau of Plant Industry, to help stamp out the wilt.

What are the results? Today 40,000 acres of the project are in cultivation and 10,000 in mixed grasses and ladino; when Crook came the figures were 17,000 and 0, respectively. Water from the Carson and Truckee Rivers is used more efficiently than ever to bring lush bloom to the desert. More alfalfa is grown today on far fewer acres than the many which produced no greater hay yield on Crook's arrival. Many sheep, tended by Basques, and some beef cattle have appeared, as well as some wheat, barley, and corn to feed them. Poultry have been introduced.

There are 600 operators on the project now; there are only about 3,500 farmers in all Nevada, seven-eighths of which the Government still owns. The herds and their production have been greatly improved, and dairy barns are appearing so rapidly that some of them still lack cows. The one-crop alfalfa system, leading to a build-up of insect and disease injury, has been broken down.

Other Department agencies now operate on the project. Sound cooperatives have been established. The alfalfa-wilt epidemic proved a blessing in disguise, in a way, because it promoted diversification. Increased pasturage has stabilized the livestock industry, aided in conserving the soil, insured the use of feed where grown, and facilitated the rehabilitation of long-abandoned land. Fields are better leveled and sloped, water is saved, puddling and leaching are prevented.

Crook was the fifth agent the counties have had. He retired to take his own advice on irrigation farming, and that is the very best advice there is. His successor is Charles York, who realizes he has a great tradition to carry on, but looks as if he could handle it.

Brief but important

Newcastle disease of poultry: Being forehanded, we mentioned Newcastle disease of poultry in an article about work of the Storrs, Conn., experiment station in *USDA* for April 1. This serious respiratory and nervous malady of chickens is so menacing now that representatives of the poultry industry conferred with USDA officials regarding it, May 2 and 3, and asked intensified research. The meeting was called by Dr. B. T. Simms, Chief of the Bureau of Animal Industry, and was attended also by State livestock sanitary authorities and BAI poultry pathologists. Death losses have so far been light in the U.S., but the malady retards growth in young birds and seriously reduces the egg production of hens. It starts off like coryza (common cold) or bronchitis, both of which infect chickens, nervous symptoms and paralysis developing later.

No reckless plow-up: American farmers have proved their ability to produce for wartime needs and famine relief without recklessly plowing up land to the sacrifice of our dwindling soil resources. Only 2 or 3 million acres of land unsuited to cultivation were broken up during the record production of recent war years. This compares with a 30-million-acre plow-up during and after World War I, much of it Great Plains grassland unsuited to growing cultivated crops, thus producing the dust bowl of the 1930's. But about 43 million acres now in cultivated crops should be shifted to safer land use, though, if full advantage were taken of all technological improvements, actual cropland possibly would drop to 330 million acres by 1950. Ask Press Service for release 1017–46 to get details.

You might want to get a copy of: Our American Land, The Story of Its Abuse and Its Cultivation, MP 596, from Soil Conservation Service. The author is the foremost American authority on the subject, Hugh H. Bennett, Chief of SCS. . . . Home Freezing of Fruits and Vegetables, AIS–48, replacing AWI–100, completely covering the subject from the home standpoint; procure from the Office of Information. . . . The Master's Example, a moving leaflet on rural health, issued jointly by the Department of Social Education and Action, Virginia Council of Churches, and the Virginia Committee on Rural Health and Medical Care; address the former at 1444 E. Main St., Richmond, Va. . . . Our Hungry World, Facts on Food Around the Globe, a partial summary of Office of Foreign Agricultural Relations' World Food Situation—1946; procure from the Office of Information. . . . Is This Trip Necessary? depicting a patient being taken into an ambulance and designed to aid in preventing accidents, has been issued by the Department, from material furnished by the Federal Interdepartmental Safety Council; a number of USDA bureaus have distributed copies to their personnel.

Disposition of Standard Form Records: If bothered about this problem, see Secretary's Memorandum 1160, issued May 7.

National 4–H Club Camp: The camp will be resumed after a 5-year war interruption. It will be held in Washington June 11–18, in temporary barracks made available by the Navy and with conference facilities at American University. Practically all States send two boy and two girl delegates and a State 4–H leader.

Claude Canaday: Claude Canaday is a Bloomfield, Nebr., farmer. So impressed was he by Secretary Anderson's radio broadcasts on famine conditions from Sioux City, last February, that he wrote to the Secretary, offering a thousand bushels of his corn for relief feeding. He explained that his income had been good during the war, that he had paid off his debts, and wanted to help others. Farmer Canaday went on that he liked to see his own sons eat well. Consequently he couldn't bear to think of other people's children going hungry. At the time the Department could not accept grain gifts. So the farmer sold corn to the tune of $1,030 which he donated as his personal contribution to famine relief. Subsequently, on a trip to Washington, he donated $2,000 more in checks presented to the President in person. What this country needs at present is not a good 5-cent cigar, but more people like Claude Canaday. P. S.: Back home his neighbors started off a rousing famine relief drive with a Canaday Day celebration.

Red tape cut: Haven't you often thought how nice it would be to go to an "over-the-counter" store to get your office supplies without first making out a long requisition (6 copies) and getting everyone from the office clerk on up, to initial it? Well, now you can in Washington. May 1 marked the opening of such a store in Room 13, basement of the Administration Building. Counters are attractively arranged to display goods. Service is prompt. Read Plant and Operations Circular 174, which announces this innovation in Agriculture and enumerates the items on sale. Field offices, take notice.

Morgan's reretirement: Something unique in retirement annals was recorded April 30 when Walter Morgan, an employee of the Office of Plant and Operations, retired after more than 25 years of service in the Department. Prior to appointment in USDA in 1921, Morgan had served for 22 years in the U. S. Navy, had rendered active combat duty in two wars—Spanish-American War and World War I—and had retired from the Navy with the rank of Chief Petty Officer. He thus enjoys the unusual distinction of having retired twice from the Federal Government. At a farewell reception tendered him, Morgan's service over the span of years was highly commended by Arthur B. Thatcher, Chief of P & O.

Dairy Branch: On May 15, Don S. Anderson, College of Agriculture, Wisconsin University, rejoined the Dairy Branch, Production and Marketing Administration, as its assistant director. He was with this branch before for 2 years and at one time headed the Poultry, Eggs, and Dairy Products Branch, Food Price Division, OPA.

The Home Demonstration Agent: This is the title of an informative and attractive Miscellaneous Publication (602) issued by the Department in April. It tells how county home demonstration agents came into existence and the incredibly divergent tasks they perform, for versatility is one of their most profound characteristics, others being love of human beings and the ability to impart knowledge. There is a foreword by Director Wilson of Extension.

The World Food Shortage: In its issue for April 6, the Economist (London) asks under this caption whether the acute world food crisis could not have been forescen. Are there culprits? Could the shortages have been prevented? Since some of you also may have asked these questions, the answers given by this leading British financial journal may prove of interest. It says that insufficient attention was paid the fact that the population of India is now 40 millions greater than in 1938, and that early estimates of the European harvest were over-optimistic. But, it continues, "what turned a difficult situation into a calamity was the droughts of only a few months ago, and these could not have been foreseen. Nor does any particular blame attach to any particular Government—except to Hitler for starting the war. Many things that were done even as recently as a year ago, such as the encouragement of livestock farming, look very stupid now. But none was manifestly or blatantly stupid in the light of facts that were available when the decisions were taken."

Agricultural Research Center: The American Magazine for June contains an excellent article by Frederick Brownell, entitled "Super Cows and Chickens," which describes the plant and animal reconditioning, streamlining, and remodeling carried on by our research workers at Beltsville and in our field experiment stations and laboratories elsewhere—along with the State agricultural experiment stations.

BAI scientists honored: Three professional employees engaged in Bureau of Animal Industry meat investigations have been cited by the commanding officer of the Quartermaster Subsistence Research and Development Laboratory for meritorious service in the World War II food program of the Army. The scientists are O. G. Hankins and R. L. Hiner, of the Animal Husbandry Division, and K. F. Warner, extension meat specialist, representing both the Bureau and the Extension Service. The contributions of Hankins and Hiner to the food program were largely in the research field and included the development of successful methods of dehydrating meat and improved refrigeration practices. Warner is an authority on the cutting, curing, and storage of meat. All three specialists served as consultants. The certificates they received commemorated "an association of immeasurable value."

Director Groth: Dr. A. H. Groth has succeeded Dr. B. T. Simms (now Chief of the Bureau of Animal Industry) as director of the BAI Regional Animal Disease Research Laboratory at Auburn, Ala. A native of Iowa, who graduated from Iowa State and did postgraduate work at Colorado State, Dr. Groth taught animal husbandry courses at Texas A. & M. for a number of years, was for a time a member of Colorado State's teaching and research staff, served a while on the Minnesota Livestock Sanitary Board, and, since 1937, has taught and conducted research at Louisiana State. Since 1912 he has represented that institution on the council of the Auburn lab, a group that aids in coordinating veterinary research in 13 Southern States with the lab's program.

Farm machinery for veterans: This year many World War II veterans are producing food for use in this country and for shipment to famine-stricken people abroad. Possibly returned service men, more than any other group in the country, realize the need for feeding the hungry in foreign lands where they themselves so lately served. An indication of their interest in farming is gathered from applications for veterans' preference certificates (for new farm machinery and equipment) which are pouring in at the rate of 4,000 to 5,000 a week, covering all items of farm equipment. Veterans just starting to farm and getting back into harness are eligible for priority consideration. During March, 41 to 42 thousand preference certificates for the purchase of new farm equipment were issued to veterans, making a total of nearly 300,000 certificates since the order went into effect June 25, 1945. During March veterans received preference certificates for 10 to 11 thousand tractors—the No. 1 item in demand.

Research Achievement Sheets: Four more of these have appeared: No. 52, on how USDA research made penicillin available; No. 53, on the development and perpetuation of the Morgan horse; No. 54, on increasing domestic production of Persian lamb fur; and No. 55, on a cultural practice, developed at a cost of $5,000, which saves California rice growers a hundred times that annually by enabling them to suppress weeds. Copies are available from the Coordinator of Research Publication, Agricultural Research Administration.

Basic USDA Food Conservation Guide: This is a 1-page mimeographed sheet, covered on both sides with food conservation recommendations, issued April 29, which you can procure from Press Service by asking for 914-46. The eight subheads give an idea of the content: (1) Conserve food in every possible way; (2) Eat potatoes instead of bread, rice, and other cereals; (3) Eat cereals sparingly, particularly wheat products; (4) Use less fats and oils; (5) Eat fish, eggs, and poultry, which are relatively plentiful; (6) Eat locally abundant vegetables; (7) Produce food if you can; (8) Share—don't hoard!

Federal Crop Insurance Corporation: Secretary's Memorandum 1118, Supplement 1, Amendment 1, April 29, announced that the FCIC Board of Directors would consist of the Secretary as Chairman, the Under Secretary, and the Production and Marketing Administrator. It also said, "Mr. Leroy K. Smith and Mr. C. D. Walker shall serve as special advisers to the Board and in such capacity shall attend all Board meetings." On May 2 announcement was made that Harold K. Hill, of Wisconsin, who had been Northern Area Director for FCIC, had succeeded Guy W. Smith (now Director, North Central Division, Field Service Branch) as assistant director of this branch division of PMA.

You'd eat dirt? You have heard people say something like that, but facetiously. Imagine what it would be to get so hungry you would eat mud! Paul W. Bedard, assistant supervisor, Cibola National Forest, was in central China not long since, leading Chinese guerrillas in spying and sabotage. He saw the Chinese not only eating grass but mud, for lack of food—it was May of 1945, in Hunan Province. A poor farmer offered the then Captain Bedard and a Chinese officer some soup; stringy stuff floated in it and at the bottom was dark sediment. The Chinese officer told Bedard not to eat it because it was composed of grass roots and mud. The mud goes in because it feels solid in the stomach of the starving. The Four Horsemen were riding in Hunan last year. Famine is still there. The rice bowl is empty. The seed rice is gone. The Chinese water buffaloes (their work animals) were killed by the Japs. The wells are fouled with dead bodies of the buffaloes. Disease is rife. Can you spare a slice of bread? If not, why not? Why not several slices out of each loaf?

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Grain policies

ON MAY 8 the Office of Economic Stabilization, the Department of Agriculture, and the Office of Price Administration jointly announced increases in grain ceiling prices effective May 13. The 30-cent-bonus corn-purchase program was terminated May 11, though the 30-cent bonus on wheat delivered to the Government through May 25 continued in effect. It was expected that the grain ceiling prices as announced would continue without change at least through June 30, 1947.

Nations that supply grain for export must choose between starving people and the maintenance of record livestock numbers, the announcement said. Several times as many people can be fed with directly consumed grain as could be fed with livestock products produced by feeding the same grain to meat animals. Because more grain will be directly consumed by human beings and less by livestock, we shall have less pork and top-grade beef, and fewer poultry and eggs, next year, though supplies are expected to exceed prewar levels.

The 1946 fall-pig goal has been reduced from the 1945 level. Sharp culling of poultry flocks is urged, especially of fat hens not earning their board, for three or four nonproducing hens can eat enough grain to provide flour and bread for a starving human being. Careful culling will not adversely affect egg production at this time of year. Dairymen are asked to increase established pastures and hay crops, to grow supplementary and emergency feeds, to feed efficiently, and to avoid waste. Maximum use of pasture, hay, and forage, and minimum grain feeding are prescribed for beef cattle and sheep. Efforts will be made to maintain milk production at something like current levels.

The Secretary announced the 1946–47 wheat program on May 14, and measures putting it into effect were announced May 23. On the basis of a 1 billion bushel 1946 crop and a very low carry-over of old wheat, the total supply for 1946–47 will be much lower than that available during 1945–46. Domestic use of wheat for food is set at 450 million bushels, as compared with about 500 currently and 545 in 1944–45. Not more than 2 million bushels will be used industrially, compared with 20 this year, and 85 must be set aside for seed. This should make it possible for us to export 250 million bushels, or one-fourth the anticipated crop. No wheat is to be used in brewing or distilling. The 80 percent extraction will be continued. Only 85 percent as much flour can be milled and distributed for domestic use as in the corresponding month of 1945. Half of all wheat delivered to elevators must be offered for sale to the elevator; provisions are made for a wheat set-aside for Government purchase till the goal is reached.

It was reported May 31 that farmers and country elevator operators in Illinois, Indiana, Iowa, Minnesota, Nebraska, and South Dakota were cooperating voluntarily in a program to ship feed grains to Northeast and Northwest areas which are short of feed. On June 3 the Department said it would loan wheat to mills in special hardship cases, where bread supplies for consumers are below the reduced emergency levels. The "loaned" wheat would be replaced before needed to meet future shipping schedules. The Department also announced an amendment to WFO 1, effective June 1, which prohibited bakers from making or selling bread or rolls, as defined in the order, weighing more than 90 percent of the weight of these products produced on March 15, 1946, or on the last prior date.

Remember thou the potato in the time of thine hunger, for if thou stuffest it thou shalt be filled without fattening.

698115°—46

Western lab

DIRECTOR T. L. SWENSON of the Western Regional Research Laboratory, Albany, Calif., is a big, competent, jovial fellow whose good cheer permeates the entire institution. Strong on the proved value of educational staff seminars and carefully planned meetings with members of experiment-station staffs, he has headed the lab's outstanding work on dehydrated foods and other subjects since the program got going in 1941. Here has been accumulated the greatest fund of precise and useful data on the dehydration of fruits and vegetables ever available.

It could be said that the modern technology of food dehydration was created here during World War II, for it essentially did not exist before. In this work the Food Products Division, headed by J. R. Machette, and the Engineering and Development Division, headed by W. B. Van Arsdale, have had a prominent place. Plans and specifications were worked out for all types of dehydration plants and the industry has drawn heavily upon them. C. H. Kunsman's Physicochemical and Analytical Division is equipped to perform any sort of control service, using the most delicate methods of physical and chemical testing and analysis. The western lab hopes now to do for the frozen-food industry what it did for dehydration, though it is still completing a few projects in the latter field. Velva Fruit et al. are just a start.

The laboratory's Industrial Products Division works on carbohydrates, oils, fats, and waxes, proteins, fibers, and plastics. A recent development is low-methoxyl pectin, made from citrus peel and useful in foods for many purposes as superior to starch and gelatin. The fundamental chemistry of proteins, fats, and oils occupies much of the division's time, while fibers are being spun from egg-white protein and also from chicken-feather keratin. Incidentally, the hen puts really fast color in its feathers!

Dr. H. D. Lightbody's Biochemical Division has made a fundamental study of dried eggs, and has found that control of the acidity during drying and storage goes far toward making a finer product. Minute changes in constituents present in mere traces are followed closely, and a dehydrated food can be caught almost in the act of spoiling and sometimes kept fresh by catching it just when it makes up its mind to go bad. Incidentally, studies on dehydrofreezing are being undertaken at the laboratory, the material being partly dehydrated to

save weight and space and then frozen.

In Lightbody's division new and powerful antibiotics are being prepared by molds grown on juice pressed from asparagus butts, the three-fourths of the stalks discarded before canning or marketing. One of these, subtilin, appears to be another penicillin in many respects, but has yet to be completely purified of some toxic contaminant. Kunsman's division is as finely equipped for work involving macrochemistry, microchemistry, X-rays, microscopy, crystallography, spectroscope, colorimeter, phase equilibria studies, and other such esoteric matters as any lab in the land.

Here also are the Enzyme Laboratory and the Pharmacology Division, parts of the old Bureau of Chemistry itself and not of the western lab, each engaged in studies meriting special articles. Unfortunately, we lack space to treat them adequately here, but Dr. DeEds' dramatic exposition on the work on phenothiazine, which ultimately established it as insecticide, remover of parasites from farm animals, and urinary antiseptic and discovered its ability to photosensitize human beings, is as fine and thrilling a science story as could be found anywhere.

There is much more to tell all along the line. Those interested in details are requested to write to Director Swenson or, in Washington, to get in touch with Frank Teuton, who heads the Information Division of Bureau of Agricultural and Industrial Chemistry.

Extension news

ON MAY 18, Director M. L. Wilson of Extension Work received the 1946 medallion for distinguished service in the field of adult education, awarded by the Adult Elementary Division of the New York City Board of Education. Secretary Anderson, in a letter to the assistant to the director, board of education, expressed his delight at the honor, and spoke of Mr. Wilson as "a consistent advocate of adult education . . . a man of real intellectual stature and of implicit faith in education as a bulwark of democracy," and as, "in every sense of the word, the type of American our Nation can be proud of on the eve of I Am An American Day."

From May 13–17, the Extension Editor Advisory Committee met in Washington to review, discuss, and formulate recommendations for Ext. information policies, programs, operational procedures, and relationships. Attending were L. L. Longsdorf, Kansas; C. R. Elder, Iowa; Marjorie Arbour, Louisiana; E. H. Rohrbeck, Pennsylvania; T. R. Johnston, Indiana; G. O. Oleson, Massachusetts; J. F. Cooper, Florida; and Louis True, Montana. T. W. Gildersleeve, of North Dakota, didn't make it, but J. T. Kangas, of Maryland, turned up at most sessions. The group had an excellent opportunity to confer with USDA information people and to meet and hear the Secretary. Copies of this report may be obtained by writing to the USDA Extension Service.

Meredith C. Wilson, Ext. farm labor chief, has reported a perceptible improvement in the farm-labor situation. Fortunately this improvement expands. For the first time since 1943 the number of workers on farms was larger in April than in the preceding year. But the farm-labor problem is far from solved, demand for workers is heavy, the picture is not uniform nationally. There are definite increases in numbers of both migratory workers and those seeking year-round jobs, but strong local recruiting campaigns are urged by Mr. Wilson.

Agricultural missions

AN AGRICULTURAL mission invited by the P. I. Government and arranged through the U. S. Departments of Agriculture and State, has left for the Philippines to advise for 5 months with agricultural experts there on a national farm program. War and Japanese occupation of the islands greatly decreased food and other crop production, and the Filipinos are faced with serious food shortages. Heading the mission is Leland Everett Call, Dean of Agriculture and Director of the Agricultural Experiment Station, Kansas State. John H. Beaumont, director of the station in Hawaii, is a member, and others were to be named.

The Chinese Government also invited the U. S. to send a similarly sponsored agricultural mission, which has left to spend 5 months there. It will consult with the Chinese National Government on formulating and putting into effect a national agricultural program. Its chairman is Dr. Claude Burton Hutchinson, Vice President, University of California, and dean of its College of Agriculture. The members, not named as this was written, comprise authorities on agricultural economics, organization, and administration; and specialists on silk, tea, tung oil, carpet wool, soybean and fish production, agricultural and chemical engineering, credit, marketing, and extension.

Tolley and successor

HOWARD R. TOLLEY, distinguished Chief of the Bureau of Agricultural Economics since 1938, has resigned to become Chief Economist and Director of the Division of Economics and Marketing of the United Nations Food and Agriculture Organization. This was announced by the Secretary May 10, becoming effective May 15. Mr. Tolley was one of the leaders in the establishment of FAO and was elected vice chairman of its executive committee in Quebec, in October 1945.

He was also adviser to the U. S. delegation to the UN Conference on Food and Agriculture at Hot Springs in 1943. He later became U. S. member of the Interim Commission on food and agriculture which prepared for the creation of a permanent FAO. FAO will henceforth deal with major economic questions in seeking better living standards for rural people and improved diets for consumers everywhere in the world.

Born on a Howard County, Ind., farm, Mr. Tolley has been associated with USDA since 1915, except for the 5 years he served as director of the Giannini Foundation at the University of California. He joined USDA as a scientific assistant in farm management, but was assistant chief of BAE by 1928; he became AAA Administrator in 1936, serving till 1938. His home is in Alexandria, Va. Temporary FAO headquarters are now at 2000 Massachusetts Avenue, Washington, D. C.

Succeeding Mr. Tolley as Chief of BAE is O. V. Wells, formerly its assistant chief for income and distribution research. Born in Slate Springs, Miss., in 1903, Mr. Wells graduated from New Mexico State College in 1928 with a B. S. degree. In 1929 he entered the Department as junior economist in the BAE Division of Farm Management and Costs, and, except for 9 months leave of absence for graduate study in general economics at Harvard University in 1931–32, has been with USDA ever since. From 1933 to 1939 he was with the Agricultural Adjustment Administration.

Mr. Wells lives in Belle Haven, Alexandria, Va. He has two children.

List of top officials: Remember that *USDA* Document No. 5, the abridged list of top USDA officials, is now revised monthly. Whenever you want new copies, write T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C.

Reductions in force

PASSAGE OF the new pay act may call for some reductions in force. It provides that the number of Federal employees be reduced, and the Budget Bureau is to set personnel ceilings for each agency. Hence it is possible that some USDA bureaus may have to reduce the number of their employees.

Here are details supplied by the Office of Personnel. First to go would be those appointed for 1 year or less. Next would go war-service appointees and those appointed since March 6, 1946, pending setting-up of civil-service registers. Last to go would be permanent and probationary employees. Within each group a nonveteran with the same efficiency rating as a veteran would be separated before the latter. If permanent and probationary employees are reached for separation, they can displace employees elsewhere in the Department at the same location in any jobs for which they are qualified. Permanent veterans can displace all others; war-service veterans can displace war-service nonveterans.

This does not mean that all employees reached for separation would leave the Department. Every effort would be made to place them elsewhere. Some reductions in force involving only budget cuts may result in grade demotions rather than in separations. A bureau may seek to make sufficient demotions to offset a budget cut. If an employee is to be separated he will get a 30-day notice, either as an active worker, or on accrued annual leave, or leave without pay. He has the right of appeal to the Civil Service Commission if he regards his separation as unfair. He can also examine the separation list to see how separations were made.

For further information about procedure used, see your bureau personnel officer.

Life saver

YOU WILL FIND something about the work of Edward F. Knipling, of Bureau of Entomology and Plant Quarantine, in *USDA* for March, 1945, Insects' Waterloo, by Gove Hambidge, and again in the October 1, 1945, issue, Louse Factory. He is, of course, the conscientious, hard-working young man who is in charge of the bureau's remarkable Orlando laboratory. On May 13, he received the United States of America Typhus Commission Medal from Secretary Anderson in the presence of Brig. Gen. S. Bayne-Jones, Director of the Typhus Commission.

The medal was presented for Knipling's scientific contributions toward the control of insects that spread typhus. Through their knowledge of medical entomology, Knipling and his associates at Orlando, under the direction of Dr. Walter E. Dove, then in the Department, developed and adapted for military purposes nearly all insecticides and repellents used by the armed forces. Among these products were DDT compounds for protection against human body lice which transmit typhus, and dimethyl phthalate for the control of scrub typhus.

The Typhus Commission Medal was established by the late President Roosevelt, by Executive order, December 24, 1942. The commission serves with the Army but comprises representatives of both Army and Navy, as well as Public Health Service. Knipling has joined the ranks of the great mass life savers of all times, right now when mankind also holds within the hollow of his hand the power of self-extermination. More power to the life savers!

Management

THE Management Improvement and Manpower Utilization Program still carries on energetically. On May 13 the agency key management representatives met with Assistant to the Secretary, W. A. Minor, in the chair. A projected memorandum revising reporting requirements was discussed, and, when issued, was to supersede General Departmental Circular No. 35, Supplement 2.

Two other matters taken up were developments in the bureau suggestions systems, resulting from Secretary's Memorandum 1048, Revision 1, February 25, and the appointment of a program committee to assist in planning meetings and other program activities.

Rest assured, employee suggestions are taken seriously in all agencies. Whether accepted or rejected, the suggestion's fond parent gets notification. Many of the suggestions have been accepted with resultant savings and improved efficiency.

At the Agricultural Research Center in Beltsville employees get stars for acceptable suggestions, four of which entitle them to a special letter or certificate. Meritorious promotions are sought for employees making very outstanding suggestions.

Urgent efforts are being made to have all employees understand that their suggestions are highly desirable. They get due consideration in all cases. Employees in management and supervisory capacities take this program sincerely to heart. It is hoped employees in Washington and in the field will do the same.

Brief but important

Two Blades of Grass: The University of Oklahoma Press—bar insurmountable obstacles in the printing field, which is filled with them now—expects to issue sometime next fall a book entitled "Two Blades of Grass . . . A History of Scientific Progress in the U. S. Department of Agriculture." It has been a part-time hobby of the author, T. Swann Harding (Information), to collect, validate, and write up material for this volume ever since 1933. It is essentially a record of the Department's scientific achievements from Patent Office days to the present, with some comment on *some* of the more distinguished research workers who made *some* of the more notable discoveries. The title stems from an expression used by the Department's first head, Commissioner Isaac Newton, in his first annual report, wherein he indicated that scientific investigation by the Department would do most to make two blades of grass grow where one grew before, and everyone knows that it did just that.

"The Farmer's Job": The following is quoted from an article of the above title, by an Iowa farmer and writer, James Hearst, in The Nation for April 27: "The farmer has been the butt of many jokes, the stooge for many a quick turn; he is insulted daily on the radio by hill-billy bands and psalm-singing medicine men. He seldom answers back because he is somewhat inarticulate, as men often are who work by themselves. In his heart he knows that these things are insignificant compared to the forces with which he lives. Yet when he is sorely tried by hecklers, he takes sardonic amusement in the knowledge that if he chose to quit work those vague clouds on the horizon would suddenly materialize into ruthless legions of famine and starvation." See the magazine for the remainder of the article. It's all good.

Exit shortcake: The Lebanon, Oreg., Strawberry Fair Committee, omitted the stellar attraction from its annual festival, a mammoth strawberry shortcake weighing 5,000 pounds and measuring 12 by 15 feet. As the fair manager wired the Secretary, the shortcake's potential ingredients will "in sipirt feed the hungry mouths of Europe." The saving included 500 pounds of sugar, 325 of flour, 120 of shortening, 1,200 eggs, and other trifles. The Secretary congratulated Manager Arnold on the excellent example set, hoped Americans would follow this lead, and remarked, "If *we* have our cake, *others* can't eat it."

Production goal and price support: Secretary's Memorandum 1161, May 20, defined responsibilities in production goal and price support activities. See this memo for details.

World's best food expert: This description was applied by Herbert Hoover to Dr. Dennis A. FitzGerald, who heads the Office of Allocations and Requirements, Production and Marketing Administration, according to Washington correspondence in Printers' Ink of May 3. We read that when the President asked the former President to embark upon his worldwide study of the famine situation, he expressed willingness to go if Dr. FitzGerald could accompany him. "Mr. Hoover promptly identified him as the world's foremost expert in all matters relating to food production and distribution," says Printers' Ink. "Dr. FitzGerald, it seems, is another of those celebrities tucked away in the Department of Agriculture doing important work and saying little about it." He was brought up on a Saskatchewan farm, graduated from the University of Iowa, took his Ph. D. at Harvard, and has been in USDA for some years.

Reuben C. Althouse: An employee of the Department for nearly 45 years, Mr. Althouse died in Washington on May 14. Born near Perkasie, Pa., he joined the Department in 1901 as a clerk in the Bureau of Entomology. Beginning in 1913 he served for 16 years on the Federal Horticultural Board, first as secretary, subsequently as assistant to the chairman. In 1928 he became associated with the Plant Quarantine and Control Administration, and was employed by the Bureau of Entomology and Plant Quarantine at the time of his death. He discharged responsible administrative functions in connection with the preparation and issuance of plant quarantine regulations. Mr. Althouse was an excellent speller and belonged to the National Spelling Bee Club. He had planned to retire June 30 at the age of 70.

William A. Turner: Dr. Turner, a native of Massachusetts, and for 25 years a chemist in the Bureau of Dairy Industry (at Beltsville), died May 20 at the age of 59. He was a graduate of Yale. A good, quiet, kind man, active in civic and social affairs, neighborly and friendly, the editor had the pleasure of working beside him in the laboratory for the six years 1922–28. He was as expert an analyst as any in the country.

Rural health: Assistant Secretary Brannan made a very clear, comprehensive, and readable statement before the Senate Committee on Education and Labor, April 25, on the National Health bill (S. 1606). Copies of the statement (866) may be procured from Press Service. In contains excellent material on the entire rural health situation, what it lacks and what it needs. It is just too good to try to abstract so, if interested in the subject, try to get hold of a copy and read it all.

W. E. Meek: Machines for cotton culture are the object of a cooperative research agreement just made between the Mississippi Agricultural Experiment Station and the Department. The project is headed by W. E. Meek's headquarters are the Delta Branch lege and a native of Clarksdale, Miss. Mr. Meek's headquarters are the Delta Branch Experiment Station at Stoneville, Miss. The cultural machinery project fits into the long-time cotton research program at Stoneville, where, in addition to experimentation on cotton-production methods by the Delta station, the USDA also has a cotton ginning laboratory operated by the Bureau of Plant Industry, Soils, and Agricultural Engineering and the Production and Marketing Administration.

Maryland versus California vet! Myron C. Frane, Farm Security Administration supervisor in Kings County, Calif., writes us about the article, Vet gets FSA training, in April 29 *USDA*, which says that Clarence Edelen, of Brandywine, Md., was the first veteran to step from FSA's rehabilitation to its farm-purchase program. Mr. Edelen's loan was closed early in March 1946. Mr. Frane claims, amiably enough, that "we have been scooped by Maryland." On September 13, 1945, he says, the Kings County office at Hanford received approval of a loan to Ralph F. Kopenhefer, 27, veteran and farmer, and on December 3 last year closed the loan. Mr. Kopenhefer had farmed in this district prior to enlisting and resumed farming there late in 1944 on rented parcels of land with the aid of an FSA operating loan to buy a tractor. Later, he found a desirable farm which he is now buying under an FSA loan.

Learn about the Department's structure: *USDA* mimeographed document No. 2, revised March 1946, is entitled "Constituent Agencies of the U. S. Department of Agriculture." While you will find therein a running account of the Department's organizational history from the very beginning until now, and also expositions of the functions of agencies which have been transferred, abolished, or consolidated, the document is in the main made up of the agency's own accounts of their structure, functions, and origins, their legal background and responsibilities. A little dry for bedside reading, the document nonetheless furnishes invaluable information to all and has special orientation interest for new employees. To procure copies: In Washington, phone Miss Glick, Ext. 5451; in the field, write to the editors of *USDA*.

Yes, we'll have fewer bananas: For your information the world demand for bananas will exceed the supply for some years to come. Get set for it. World exports declined to fewer than 30 million bunches in 1943, as compared with a 1934–38 average of nearly 107 million. It will take several years to restore South and Central American banana plantations to high-level production. In 1945 the U. S. imported 40 million bunches, as compared with 55 million in prewar years. Yes, and Alexander the Great first found bananas in the Indus Valley in 327 B. C.

Commodity Credit Corporation: The Administrator of Production and Marketing Administration now heads CCC with his deputy administrator and assistant administrators as vice presidents, the Director of PMA Fiscal Branch as treasurer, and the Director of PMA Budget and Management Branch as secretary. The Board of Directors consists of the Secretary as Chairman, Under Secretary, Assistant Secretary, and PMA Administrator, Deputy Administrator, Assistant Administrators, and Directors of Price and of Field Service Branch (Secretary's Memorandum 1118, Supplement 8, May 20).

Earl Wilson leaves: Earl B. Wilson, formerly director of the Sugar Branch, of Production and Marketing Administration, resigned May 31 to return to private industry. Coming to Washington as a consultant during the war years, he was made director of the Sugar Division of Commodity Credit Corporation, February 1943, and director of the Sugar Branch when the PMA was formed in August 1945. For the past 3 years he has been chairman of the American Committee in the Cuban-American sugar purchase negotiations.

Cities Are Abnormal! Cities are under fire as anachronisms in this book, a symposium edited by Elmer T. Peterson, an Oklahoma newspaperman. It is from the University of Oklahoma Press (ask the USDA Library or your bookseller), and Louis Bromfield, Ladd Haystead (who is thought provoking as usual), and Paul B. Sears are among the contributors. Paul L. Vogt, of Bureau of Agricultural Economics, is author of an excellent chapter on What We Are and What We May Become. Dr. Jonathan Forman's contention in his chapter that cities are unhealthful is rather refuted by facts which demonstrate that inhabitants of rural areas, farmers in particular, have a lower standard of health than city people. But read it for yourself and draw your own conclusions.

Herbert Hoover said it: "Civilization marches forward on the feet of healthy children." Healthy children cannot be produced on the 1,500-calorie diet common in Europe. "While this diet, which is as much as 85 percent bread, and the balance a little fat, sugar, and vegetables, will pull adults through, it is not adapted to children." The annual mortality rate is 200 per 1,000 children in many European cities. There are 20 to 30 million physically subnormal children on the Continent. In Asia things are as bad if not worse. Make these children invisible guests at your table by the frugality which will keep them from slow starvation.

Fur-bearing animals back in USDA: Public Law 369, Seventy-ninth Congress, approved April 30, and effective 60 days after date of enactment, transferred all matters relating to the domestic raising of fur-bearing animals from the Secretary of the Interior to the Secretary of Agriculture. This work was in USDA before, under the Bureau of Biological Survey, but was transferred to the Fish and Wildlife Service of Interior in 1939. This work will be placed in Bureau of Animal Industry.

Merit medal to fat-salvage idea man: Thomas E. Wilson, Chicago businessman and civic leader, who originated the fat-salvage program by putting on a Chicago campaign of his own, 6 weeks after Pearl Harbor, has been awarded the Medal for Merit, highest award given to civilians for war service, presented by President Truman.

Baird Snyder: The former associate engineer of Resettlement Administration and chief engineer of Farm Security Administration, died May 18 of a heart attack in Washington, D. C., age 46. He was at the time Assistant Federal Works Administrator.

G. F. Rowe: The Special Assistant to the Director of Information in charge of special campaigns, USDA, resigned May 8 to become public relations executive for the Dairy Industries Supply Association, Washington, D. C. Mr. Rowe has been with the Department for the past 6 years.

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USDA

FOR JULY 8, 1946

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USDA at Bikini

THE USDA was represented at the Bikini atomic bombing by collections of molds, seed, plant and animal disease materials, and insects both friendly and hostile to man. These were sent to Operations Crossroads, where they were exposed at 25 different stations to alpha and gamma rays and exploding atomic nuclei. Assembled by our research bureaus, the collections will be rushed back to Washington for careful examination by our scientists.

Will seed germinate after such exposure? Will they produce plants that are dwarfed or otherwise altered genetically? What will the rays do to hybrid corn and barley seed, improve or destroy them? May we expect useful alterations, from a human and industrial standpoint, in known strains of molds and other micro-organisms, including a special strain of *Aspergillus niger* studied a great deal by USDA research workers? What will happen to cultures of germs causing animal diseases and to biological materials used for the diagnosis and treatment of such ills?

It is hoped that the tests will yield useful information in reply to these questions.

The insects offer special problems. Contrary to popular opinion, most insects die quickly if not supplied with proper food and kept under appropriate temperature and humidity conditions. So a nurse had to be sent along to take care of them—a Manhattan, Kans., entomologist on the USDA staff. The tests may give us useful knowledge about beetles, weevils, moths, and mosquitoes. Even bedbugs made the journey, with tenderest care to keep them in good condition; so did star ticks, dog ticks, fowl ticks, chicken mites, and cheese mites.

So the USDA was well represented at Bikini with best hopes for the worst in many instances.

World food council

THE International Emergency Food Council, establishment of which had been recommended by the Director General of the Food and Agriculture Organization at a Special Meeting on Urgent Food Problems in Washington, May 20–27, was set up June 20. This council replaces the Combined Food Board, which was represented by the United States, United Kingdom, and Canada.

IEFC, which started work immediately, is to continue until December 31, 1947. It will save world food supplies, plan for increased food production in 1947–48, and prepare to handle possible future surpluses of food. Nine nations were named to the IEFC Central Committee: Argentina, Australia, Canada, China, France, India, Denmark, United Kingdom, and United States. Besides these 9 nations, the following 11 countries are members of the council: Belgium, Brazil, Chile, Cuba, Greece, the Netherlands, New Zealand, Norway, Siam, Turkey, and Union of South Africa.

D. A. FitzGerald, Director of Requirements and Allocations in the Production and Marketing Administration, on June 22 was named secretary general of the new 20-nation food council. He is on leave of absence from the Department.

Sherman Briscoe wins award: The Capital Press Club gave its yearly award for outstanding work in news reporting to Sherman Briscoe, Office of Information, for his article, Schoolmarm Turns Dairymaid—and Succeeds, in the February 1945 issue of Newspic. The judges were Tom Stokes, I. F. Stone, and Ernest Lindley, who made the presentation. Briscoe also had an article in the March issue of Ebony, a relatively new Negro picture magazine with a circulation of over 200,000—subject, on a Maryland poultry farm operated by a Negro, title "Eggs to Riches."

Officialese

THE FOLLOWING is a straight steal from the preface to A Word in Your Ear, bound in one volume with Just Another Word (E. P. Dutton & Co., or ask your local bookstore), by Ivor Brown, an item we mentioned before in *USDA*:

In our time the official has created a language, a fearsome and ponderous dialect which I once christened the Barnacular in memory of the Circumlocution Office and its Tite Barnacle Controllers. But let us be fair to the Civil Servant: the official is not the only dealer in officialese. There is in this country (England) an enormous and semi-official bureaucracy which deals in social welfare and all manner of educational and uplifting matters. It is rapidly developing a jargon of its own, a semi-officialese which is even worse than anything to be discovered within the envelopes marked O. H. M. S. It has the pomposity of style favoured by the self-important Business Man mixed up with the pretentiousness of those who dabble vaguely in Social Sciences. While the Government afflicts us with the Barnacular, the Uplifters and Welfarists are assaulting us with the similar horrors of their Jargantuan . . .

"Bringing corrective to bear upon reactions to war-time experience" probably means something. But, being an innocent abroad in this land of Jargantua, I would not care to say what. However, I am a poor hand at this whole business of spinning syllables. I have always preferred "naughty children" to "juvenile delinquents" and "mend" to the now universal "recondition." What parent ever asked his boy not to be "delinquent," or told him to "recondition" his manners? . . .

Not long ago there was a broadcast about war-time on the farm which was delivered by Wiltshire cowmen, shepherds, and labourers in a natural way with an agreeable burr to their speech and a sensible reliance upon the vocabulary of the village. But suddenly, in the midst of it, one cowman said, "We, with our depleted staff . . ." instead of "We, with many away."

Depleted staff! It is the very hall-mark of officialese, with its Latinity and its use of a formal and imposing word, instead of the simpler "hands" or "men." We need not suppose that the cowman wished to be imposing and to seem a fine, book-learned speaker at the "mike." He might have used the phrase any day at his own fireside, because words of this kind come pouring over the air and are inserting themselves into the common talk "unbeknownst," as they used to say . . . Why, for example, say of a certain food that it is "in short supply" when all you mean is that it is scarce? I have not yet heard a housewife tell her husband that eggs are "in short supply" this week, but that, like "depleted staff" upon the farmer's lips, may come. . .

What Political Correspondent, for example, would write simply, "Those who know say that things get worse"? Such a sentence, with its bare monosyllables, would stand no chance to-day. It would certainly become, "In the opinion of authoritative circles at the higher levels it is considered that the situation is showing an increasing tendency to deteriorate." That is not a parody: it is pure transcript. Nor is it only in the political and diplomatic commentaries that one finds this addiction to wordy, windy statements. Every Government Department has its favourite formulae of this kind and sometimes one word is a strong favourite with all at once.

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Preston of FS and SCS

THE OTHER DAY a lot of people went home from the Soil Conservation Service corner of Agriculture toting little trees—western cedars and white pine. Some had their pockets stuffed with walnuts, the seed of a selected strain of this nutritious nut. John F. Preston was retiring after 30 years with the Department, and he had brought these choice plantings from his Maryland farm as tokens of long and friendly associations and work with trees and land. Preston's service was divided between work with the Forest Service, and SCS. He was largely responsible for development of the woodland conservation program of SCS, in which he served as chief of the Forestry Division for the past 10 years.

As a prairie farm boy, in 1900, John Preston read a story in the Youth's Companion, showing Gifford Pinchot's picture and telling something about forestry. "That decided me," he admits. "The appeal of the forest was too strong to resist." He took his forestry degrees from Michigan University and, by 1906, was in the Ozarks working for FS. "We calipered thick stands of scrub oak until we were dizzy counting," he recalls. Later, until 1920, he followed the endless and winding trails of the great woods of the Northwest. He was on timber sales work for years, cruising and marking, running timber lines, teaching rangers timber management.

As assistant district forester of the Flathead National Forest, Preston was fighting the big fire on Big River, Mont., when World War I broke out. "That's what I did through most of the war—fought forest fires," he will tell you. In 1920, FS brought him to Washington as forest inspector, and 5 years later a Pennsylvania paper company took him for 10 years as technical adviser in timberland purchase and administration, purchase and analysis of pulpwood, and logging and reforestation.

He came back to the Department in 1936 with SCS, just as conservation of farm woodlands was starting to come in for so much attention. Preston believes that farm woodlands are an important part of the farm business and that farm timber should be used as a dependable, profitable crop. He plans to grow all the trees on his farm that his acreage will permit—and to spend his spare time writing about forestry and soil conservation.—P. O'N. Faris, SCS.

You typists and stenos!

ABOUT 265,000 persons in the U. S. applied to take the stenographic and typist examination recently held by Civil Service Commission. While many did not actually take the exam, and all who did did not pass, the list of eligibles for the 250,000 stenographic and typing jobs, now largely held by war-service or temporary appointees, is formidable. Most of those who took and passed the exam will keep their present jobs with probational appointments. Nor is it anticipated that the list of eligibles will fill requirements.

Only about 15,000 of those who applied for examination were not already in Government service, hence eligibles to replace war-service and temporary employees who failed to pass will be few. Hence, also, unsuccessful applicants already on the job will probably remain there until eligibles are available from the recent exam, or from those later to be held. Present employees who failed the recent exam can take future ones, thus may still become eligible and retain their jobs.

A few war-service and temporary employees will doubtless be displaced in some localities with more than enough eligibles to fill all jobs. But Office of Personnel believes that the great majority of war-service and temporary stenographers and typists who failed in the recent exams will be retained until they get another chance to pass.

FSA loans

FARM SECURITY ADMINISTRATION makes loans, but it is not a loan agency. Its primary objective is rural rehabilitation and conservation of human resources in farm areas. It seeks to assist low-income farmers to reach security in family sized farm enterprises. To this end, on recommendation and approval by its local FSA committees, composed of active, progressive, resident farmers, it makes rural-rehabilitation, tenant-purchase, and water-facilities loans.

These are essentially character loans. The borrowers cannot get credit elsewhere. The loans are made contingent upon the family's acceptance of practical guidance in farm and home management. The former type of loan enables the farmer to procure necessary equipment, livestock, seed, feed, and fertilizer, or to meet family living, medical care, and farm-operating expenditures. The latter type is designed to foster home ownership on the part of competent, capable farm tenants, usually graduates of rural rehabilitation. At the end of the 1945 fiscal year rural-rehabilitation loans were being paid off to the extent of 90 percent, and farm-ownership borrowers were 57 percent ahead of schedule in their payments.

It is dull stuff to read that. Nor can it be fully understood unless you follow an FSA county supervisor around on his beat for a few days. Then you see and hear what goes on.

You go into the homes of borrowers as the supervisor returns the farm and home plans, formulated by the families on a basis of what they think they can do, with the aid of all local USDA personnel in every agency. You leaf the farm record books in which every animal, every field, every crop, every farm and household expense are entered. Every detail is fully recorded and, from the book, it is possible to pick out weak spots in the family's program and enable them to strengthen it.

Groups of families meet together socially every now and then. Sometimes they meet at the houses of one another for the purpose of analyzing their efficiency as farmers. They mark themselves A, B, or C, on forms provided for the purpose, and again under the guidance of all available USDA personnel at the county level. They discuss their mistakes, their objectives, and their achievements. They learn what to avoid and what to do.

When a tenant-purchase or rural-rehabilitation loan is up for consideration, the most careful inquiry is first made. Specialists visit the farm the family intends to operate. They become familiar with its possibilities, field by field. They examine the farm house, the conditions of the purchase contract, the equipment and livestock possessed by the applicant. Finally the FSA committee holds a meeting which may be attended by extension, livestock, and soil-conservation representatives, as well as farm-security people.

Every detail of the projected farm enterprise is examined minutely. A fairly complete farm and home plan is evolved, with assistance of the specialists. As many potential causes of failure as possible are ruled out in advance. No stone is left unturned to foster the security of the borrowers and their ultimate success in the farm enterprise. The committee is conscientious and patient to the last degree, its members willingly leaving

their own farm work to serve to the limit.

After such a visit one feels that this is the way farm loans should always be made. No wonder the FSA borrowers often turn out to be the most efficient farmers in the county. For the gap is bridged between research and practice. Science is put to work. Rational plans are made on the basis of expert advice. Yet an overflowing and genial humanitarianism animates every individual concerned. Here you see USDA at its very best and that is extremely good indeed.

W. E. Rhea

W. E. RHEA, 56, Land Bank Commissioner in the Farm Credit Administration since 1940, died on May 30. He had served in the land bank system for more than 25 years. His career was highlighted by work in both legal and administrative matters pertaining to the land banks. He first joined as an attorney with the Federal Land Bank of St. Louis and later, in 1922, for the Joint Stock Land Bank of St. Louis.

"Bill" Rhea was born at Hale, Mo., but later moved to Arkansas. He came to Washington in 1909, as a messenger in the Weather Bureau, which he later left with the title of observer. While in Washington he obtained LL.B. and LL.M. degrees at Georgetown University. He returned to Fort Smith, Ark., to practice law in 1915, and was mustered out of the officers' training camp at Camp Pike, Ark., in 1918.

After returning to business life, Mr. Rhea continued his private law practice until he joined the land bank system in 1920. In 1935 he came to Washington as Deputy Land Bank Commissioner, in which capacity he served for 5 years until appointed as Land Bank Commissioner.

World food production: May prospects indicate that the world will produce more food this year than it did last, but not as much as prewar. As forecast in October 1945, and again in February 1946, by Office of Foreign Agricultural Relations, the world food situation has become more critical during the past three months. Low rations will have to be reduced still further in deficit areas before new harvests. Ask Press Service for 1143 for more detail.

Tejada and Madrid

JACOB TEJADA is county agent for Guadalupe County in New Mexico. We found him at Santa Rosa, after driving through one of New Mexico's finest April dust storms, which swept clouds of sand and dirt, small pieces of lumber, and sheets of tin roofing all over the rather desolate-looking county seat. We found the soil unappetizing and gritty, though the Pecos River disappears near here and becomes productive of some attractive fresh water lakes. One of these, Blue Hole in Santa Rosa, was encased in masonry in WPA days and looks as if filled with light blue ink. Here Tejada is determined to see a fine recreation center for the county seat—give him time.

The farm of Andres Madrid was some miles out near the village of Puerto de Luna—which looked unmoonlike enough in the swirling fog of dust. Mr. Madrid was running his tractor, while holding his handkerchief before his face to protect himself from the whipping particles, the wind being about 70 miles an hour. To talk to us he had to get into the car, where, once settled, he immediately began to praise the county agent and to say he could have done nothing without Tejada's help and advice.

Said Tejada, "See, I had him all primed to say that to you!" but Mr. Madrid protested "nothing of the sort" and his praise really sounded sincere and spontaneous. This is true subsistence farming on irrigated land, with few expenditures, because needs are few and little cash is required. The county agent has persuaded the county conservation committee to make approved-practice payments for improvements Madrid had made in his irrigation ditches to control the water flow. The committee was never averse to aid these small farmers, but was not in a position to seek them out, hence the value of the county agent who told them what they could get and where and how.

Mr. Madrid settled here in 1937, purchasing a half section of which only 4 acres were in cultivation. The next year, with the assistance of a farm loan, he bought the remaining half section with 12 acres of cultivated land of which 6 could be irrigated. He had been a rancher and a dry-land farmer, and the Farm Security Administration supervisor taught him some principles of irrigation farming and crop diversification. He planted corn and sorghum in the main, reserved a half acre for his home and garden, and, in 1937–38, averaged about $400 income. He then took to planning his operations with the county agent. He progressed rapidly.

In 1944 Madrid's estimated gross income in cash and produce used at home and on the farm was $3,865. The 1946 Madrid farm plan calls for replacement of all horse-drawn with power machinery, 25 acres of alfalfa, 4 of corn, 1 of garden, 3 of sorghum, 1 of beans, 125 poultry, 4 hogs for home use, 4 milk cows, 80 ewes, 7 beef cows on the range, and a gross income of over $4,000. The Madrids also have learned how to cure pork, make hominy and flour from blue corn, can and dry fruits and vegetables, treat seed, make soap, cull poultry, control animal parasites, level and slope their land, and conserve water.

A good county agent is a sort of professional agitator for beneficial community causes. He is the public conscience, the community spark plug. He adds initiative to the people's native intelligence and shows them what can be done and how to do it. Somehow he stirs them out of generations of traditional lethargy into progress and beneficial community activity. But he depends as completely upon the Mr. Madrids in such communities as do the Mr. Madrids upon his advice and counsel.

It rains fish

AN INFORMATION man may be stumped but he never surrenders. The other day a letter drifted mysteriously in to William C. (Bill) Pryor of Soil Conservation Service. It was brief and to the point. It read: "Will you please advise me if you have on record that it ever rains fish?" Bill's not to reason why; his but to do and die. How the letter got to SCS he did not ask, but he did reply.

First, said he, showers of frogs, fish, snakes, insects, turtles, and earthworms are wholly imaginary. People just think it's raining them. At least that's so with the earthworms, and probably camels and elephants too. Sudden rains simply disturb the earthworms, they crawl up to the surface to see what's the matter, and unobservant people see them for the first time and imagine it rained earthworms.

With fish it's different. Maybe it's different with some of those other smaller living things too, which twisters could lift in far parts, transport a long distance, and then deliver elsewhere with a deluge of rain. People have seen fish falling from the sky—sober people, that is. Showers of fish are common in tropi-

cal regions. At one place in Honduras fish showers happen often enough to be irritating. In India fish 3 pounds in weight have fallen in thunderstorms.

You don't believe it? (It strains our credulity too.) Bill's authority is a book: George Stimpson's A Book About a Thousand Things. Ask for it at the bookstore or library. Charles Fort would disagree. He held that anything scientifically impossible could happen, and did right along. Look up his books. There is even a Fortean Society in his memory, a private enterprise of novelist Tiffany Thayer. It gets out a semi-so-often house organ, very cryptic and esoteric. Nobody can read it. But it says even horses and blood fall in rainstorms.

FSA veteran committee

DETERMINED not to put veterans on an agency merry-go-round, the regional office of the Farm Security Administration in Denver has set up a special regional committee to aid the many newly discharged soldiers who come in seeking answers to their problems.

This committee, which has been active for several months, has two assignments: First, to be informed about all agencies in the city which serve veterans and at the same time to keep these agencies up-to-date on FSA service to those interested in farming; second, to handle interviews with the men seeking information about farming and FSA loans.

A uniform plan was adopted for interviews. Each committee member has a simple outline of the procedure to be followed. It includes such pointers as: "Listen to the veteran's story before you start to answer his questions. Make him feel at home and give him your undivided attention. Get the complete story in mind before you start to answer his questions." Each member also has a brief reference manual containing answers to most of the questions asked and a list of names, addresses, phone numbers, and functions of other agencies assisting veterans. Mrs. F. L. McBean, in charge of the information desk, refers the visitor to a committee member and sees that no one is asked to handle more than his share of the callers.

The plan has worked so successfully it has been extended to FSA field offices in Montana, Wyoming, and Colorado.—WILLIAM B. O'ROURKE, FSA, *Denver*.

N. Dak. flying farmers

WITH THE *USDA* editor in town, the Bismarck (N. Dak.) Tribune broke out into a cryptic headline, "Cowpokes Ignore Noble Steeds as Flying Farmers Meet Here." It was June 5 and, as depicted photographically, 114 North Dakota farmers and ranchers from 30 of the State's counties had flown 45 airplanes to Bismarck the day before and organized the North Dakota Flying Farmers and Ranchers. This event also explains why the editor missed the pleasure of seeing Tom Gildersleeve, extension editor, and Ed Haslerud, director of extension, in Fargo on June 4.

Most of the farmers attending this meeting had private pilots' licenses. Some had commercial flying permits. A few were former World War II air force pilots. Some had flown only a few weeks, some for 15 years. But Dobbin and Henery are now both much too slow for these air-minded farmers. Leland Brand, of Taylor, became president and Lorin Duemeland, of Bismarck, vice president of the new organization.

Howard Henry, of Westhope, uses his plane to locate cattle, check fences, and make quick trips to big towns for machine parts. Ranchers find planes invaluable when winter blocks the roads and towns are far apart. Small, single-engined craft can be landed in pastures and farm yards to hunt coyotes, attend livestock sales, and drop salt onto grazing land.

This is a nonprofit organization to promote the educational and scientific use of airplanes in North Dakota's agricultural industry. For your information, a flying farmer is officially defined as a person normally deriving 51 percent of his income from farming and ranching, who is interested in aviation or holds some type of flying license. So the big wheat State flies ahead into the future. And these lines are written in the oldest structure in Bismarck, its old fort, now remodeled and occupied by Soil Conservation Service.

War Records Monographs: The first of a series of these monographs is Farm Machinery and Equipment, by Erling Hole, Materials and Facilities Branch, Production and Marketing Administration. The War Records Project, started under the Bureau of Agricultural Economics in 1943, is part of a Government-wide program initiated by the late President Roosevelt to record the history of the Government's activities in World War II. Monograph No. 1, which includes discussion of Government controls on farm machinery during the war, is available by writing to Division of Economic Information, BAE, or by phoning Miss Finley, 2244.

Frozen assets

GENERALLY SPEAKING, frozen assets are of no use to anyone, at least until they've thawed out—and sometimes that takes a long time. However, the frozen assets we are referring to—the 37,500 tons, or 75,000,000 pounds of frozen fish in cold storage warehouses as of May 1 of this year—should prove of value, especially in face of meat shortages. Last year on the same date we had less than half that quantity of fish in cold storage. In addition to our stocks of frozen fish there are prospects of a record-breaking catch in 1946, with many men entering the fishing industry and more and better boats than we had before the war.

We'll tiptoe past such matters as the protein, mineral, and vitamin content of fish. We're not going to say, if you're as jittery as the side door of a bus, you'll find eating fish beneficial (no pun intended). No, we only remind you that it's a well qualified alternate for meat nowadays when the butcher sometimes presides over an empty showcase. There's plenty of both fresh and frozen fish right now—we counted 49 varieties in abundant supply in various sections of the country on the list compiled by the Special Commodities Branch of the Production and Marketing Administration.

Unfortunately, because of the lack of transportation facilities abroad, it's impracticable to ship frozen fish to foreign countries for famine relief.

A bomb is born

SOMETIMES we think that research should proceed quickly, surely, and with high business efficiency. Some of us believe that is what happened in the development of the atom bomb. But we forget that it took 75 years to achieve that bomb.

It was in 1879 that Sir William Crookes discovered that high-voltage electricity generated peculiar rays ("cathode rays," he called them) when it was sent through an evacuated glass tube. Later Sir J. J. Thompson discovered these rays to be particles of negative electricity, and he named them "electrons." In 1895, Roentgen discovered X-rays by bombarding metal targets with electrons in a vacuum. Thereupon Becquerel, investigating substances that glowed in the dark, found that uranium ejected radiations similar to X-rays. Marie and Pierre

Curie, following this lead, discovered radium in 1898.

In 1911, Sir Ernest Rutherford formulated his model of the atom as composed of a very heavy nucleus, carrying positive electric charges, surrounded by negative electrons arranged in strict configurations. Two years later Niels Bohr advanced the idea that the electrons revolved around the nucleus as the planets do around the sun. Then Rutherford tried to fracture the atomic nucleus, believing he could thus transmute elements or make new ones, but he lacked a projectile powerful enough to do this. That lack E. O. Lawrence supplied, in 1931, by inventing the cyclotron which can accelerate the speed of positively charged particles as high as 10,000 miles per second. Such projectiles can fracture an atomic nucleus.

In 1932, Irene Curie and Frédéric Joliot bombarded beryllium atoms with particles from radioactive polonium. Sir James Chadwick next showed that peculiar new-type particles, which he named "neutrons," made this possible. In 1935 Arthur Dempster detected a rare atom of uranium with an atomic weight of 235 in lieu of the ordinary 238. All radioactive elements spontaneously disintegrate, but relatively slowly. In 1939 Hahn, Strassman, Meitner, and Frisch discovered a violent and rapid type of atomic disintegration that could be induced in uranium 235. Once started, the process rapidly accelerates, and soon releases stupendous quantities of energy. At last the atom bomb was all but born. The rest is history.

Research is slow. It involves the brains of many persons in many lands. But it opens new windows overlooking the universe. It places in our hands power to destroy or to fulfill.

Water and Our Forests: Under this title, the Forest Service has just issued a booklet (MP 600) showing how denuded forest land and unwise use of forests on upland watersheds contribute greatly to disasters such as the floods from heavy rains that recently caused 10 or more deaths and much property damage in Pennsylvania, New York, and Connecticut. The booklet says each locality must find the answer to problems of its own watershed, and shows how some communities have found the answers, usually in increased vegetative cover for the slopes sometimes supplemented by engineering works. Copies of MP 600 are available by writing to the Office of Information, or by calling at the information desk in the patio.

Harmony

IN CROSS-COUNTRY hitch-hiking to visit USDA personnel, wherever located, one usually finds all individuals and all agencies working harmoniously together. In doing so, they present to the public a united front, and that is important. For the average citizen wants service. He is not interested in the cautiously guarded frontiers between agencies or even in the current administrative status of agencies. This is natural also. Above all, outsiders are uninterested in the little hostilities, feuds, and jealousies that sometimes arise among agencies.

For there are some places in the broad U. S. where each agency tends to work by itself, to stand upon its own dignity, and largely to ignore what other agencies are doing. From that, it is a very easy step to mutual dislike, and the first thing you know the citizen is confused by having to deal with several agencies, some of which give him diametrically opposite advice from the others. That is undeniably bad. Such conditions should be rectified as quickly as possible.

One of the best remedial steps is the formation of a USDA Club. This gets the personnel of various agencies together socially and enables them to understand their mutual problems. It leads them gradually to present to the public not a mere collection of individual units but a united over-all Department. People who get together socially in a friendly way rarely find it possible to entertain mutual suspicions. Plain physical contiguity is important also. If it were only possible for all USDA agencies to be housed together wherever we have field stations, it would promote better service and tremendously improve morale. But if that cannot be done, the USDA Club can accomplish much.

Orderly disorder

THE QUESTION whether an orderly mind and an orderly desk go together remains unanswered. Primarily an orderly person is lazy. He just doesn't want to go to the trouble of hunting for things. Therefore he has a place for everything and everything in its place and thus lightens his work load..

On the other hand, all such orderly and systematic people know a great many other individuals who are both disorderly and unsystematic, yet are so superior they put the former to shame. For what it is worth, our opinion is that the disorderly desk and the disorderly mind do not necessarily go together, and we are the orderly type.

Certain of the lower living things cannot count, yet in some instinctive or intuitive way they know when one of a considerable litter of young is missing. In quite the same way some people, who cannot possibly keep their desks in order, know where everything is, and you lift the slightest thing from the pile at your peril. They are sure to nail you and ask if you didn't remove so and so.

Some workers are so much at the beck and call of others that they cannot be orderly. Their desks simply have to pile up while they attend more important things. Others manage to clear their desks daily, reducing chaotic disorder to neatness and finding a clear desk top to leave as they depart from work.

But there are workers with perpetually disorderly desks who do a good job, lose nothing, remember all that needs to be remembered, and rate high in efficiency. Possibly all that can safely be said is that it irks *orderly* or *disorderly* people to work close by their opposites. That holds in offices just as it does in matrimony and, since neatness is usually beaten into people in their formative years, little can be done about it.

Open session

SOME IDEAS recently mulled over by Butler County, Ohio, soil conservation, extension, farm security, and triple-A workers, in company with a select few farm-minded outsiders, may have some general interest.

It was suggested, for instance, that since agricultural field workers usually require two to five years to find out what they ought to do and how to go about doing it, land-grant colleges should establish courses for future field workers, giving certificates or degrees. Next the idea came up that many farmers wanted and were willing to pay extra for additional specific information of use to them on their own farms. Hence why not establish some sort of co-op to give farmers constant individual service in solving all problems confronting them, and do this for a moderate fee with a staff of salaried experts?

That brought up the idea that maybe farmers already got too much gratis Government aid, State and Federal. Possibly they would appreciate help more if they paid for it directly. (Imagine an Extension or Farm Security Administra-

tion man going out to give a farmer advice and then solemnly collecting a fee like a family doctor!) But maybe farmers, like other people, just need to be educated up to appreciating the benefits afforded them by the Government. Only then could they be intelligently cooperative.

Then the group got to discussing the county agent's work. One agent in Kentucky said he'd hold no night meetings; he'd hold meetings in the daytime and make people appreciate them and him—and they did! Too many agents got tangled up in busy work, holding meetings and seeing people, in an uncoordinated way not fully planned. They became strangers to their families, yet did poorer work and won less respect than agents who worked shorter hours but planned well and accomplished more in them.

Finally the old subject came up of field people being swamped with printed matter sent to them by Federal and State headquarters, all of which they could not possibly read. That made some of them irritable. But, said one USDA field man, why even think of reading it all? Why not use intelligent discretion and winnow it? A person was very foolish who read everything attentively that came in to him. You needed to look over a great deal to be sure you didn't miss anything. But the habit should be formed of quickly sorting the incoming shipments into three piles; (1) Hold to read carefully; (2) skim quickly; (3) wastebasket immediately. Some sense to that.

English food rations: A Mrs. Evans writes from London to the New York Herald-Tribune, May 31, telling about recent food rations. They were: Weekly, cooking fat, 1 ounce, other fats 6, cheese 2, sugar 4, sweets 3, tea 2–3; milk, adults, weekly in summer, 3 pints, children under five, weekly all year, 7; children, five to eighteen, weekly all year, 3½; meat weekly, adults "ls. 2d., children 7d." "I, my husband, two small children, and an unnecessary but nice cat and dog," wrote Mrs. Evans, "exist and have existed for 3 or 4 years on such rations, or a slight variation of them. Other commodities, such as syrup, suet, beans, and cereals, are heavily rationed on a 'points' system."

Index to Vol. IV of USDA: The Index to *USDA* for January–December 1945 is now available. Write the editors of *USDA* or phone 4875 or 5451.

Big States

NORTH DAKOTA and Montana are big States. Montana is third largest in area and it takes all day to get across it by train. North Dakota produces 80 percent of our durum wheat and plenty of other kinds, as recent events have brought to our attention.

When we visited Fargo recently, Emil Frost, Production and Marketing Administration's Assistant State Director and president of the local USDA Club, was our guide. Clint Haskins, of Soil Conservation Service, and PMA's State Director, J. E. Kasper, also were met. The club itself, composed normally of top officials, invited the ladies also this time, and they turned out in force. Glenn Smith (durum wheat) and Harold Flor (flax) of the Bureau of Plant Industry, Soils, and Agricultural Engineering, were interviewed at the State college, as was also the experiment station's famous breeder of small grains, L. R. Waldron. Eunice Kelly is carrying on interesting research on human nutrition in the department of human and animal nutrition. Tom Gildersleeve, extension editor, was unfortunately out of town.

Near Bismarck is the Northern Great Plains Field Station, the largest PISAE has, and A. M. Halweg of its staff proved a capable guide. The station performs research on shelter belts, silviculture, forage crops, crop rotations, and fruit for farm use under conditions peculiar to this region. The station is beautifully landscaped and very attractive. It was founded in 1915. Nearby the Bureau of Dairy Industry has its Mandan breeding station (founded 1928) under A. L. Watt.

Then there is the magnificent futuristic capitol building of North Dakota which juts up from a hillside 20 or 30 stories. We met Gov. Fred G. Aandahl in his office. During the years 1933 to 1938 Fred Aandahl was, at various times, a member of the Barnes County Wheat Production Control Board, of the AAA State Grain Board, and of the State Agricultural Conservation Committee. Gov. Aandahl told us that the capitol building cost 2 million, is all paid for, and 80 percent of its floor space is functionally usable. Certainly the main lobby, which connects the sumptuous legislative chambers with the office building, is a place of grandeur with its lofty golden columns and the stupendous window overlooking the nearby countryside. Extension Director Ed Haslerud was found in the Governor's antechamber with a Soil Conservation Service group about to act on the establishment of new soil-conservation districts in the State.

Moving on to Helena, Mont., one finds a smaller, and more conventional, capitol building, placer gold mining still going on in the suburbs, gold still found when foundations are dug for city building, and a USDA Council which expands itself into a group of 30-odd on occasions and assumes all the aspects of a USDA Club. There are fewer USDA employees here than in Bismarck, which can on occasion turn out over a hundred members at club meetings that are usually attended by 30 or 40. En route to Helena we had an interesting train conversation with Dr. George A. Selke, chancellor of the Greater University of Montana, who confessed himself to be quite an admirer of the USDA.

Others visited in Bismarck were James E. Long, of SCS, housed in the oldest building in the town, leased to SCS by Weather Bureau, and R. C. Newcomer, county agent (Morton County, N. Dak.). In Helena we saw A. D. Moir, of Forest Service, supervisor of the Helena National Forest; Grant Lee, a Bureau of Agricultural Economics statistician; Homer D. Millegan, farm security supervisor for 5½ nearby counties, stretching 2 or 3 hundred miles either way; Burdette F. Wohlfrom, triple-A chairman (Lewis and Clark County, Mont.) and former county agent (Broadwater County, Mont.) W. O. Zirnstein. His successor, C. W. Vaughn, was out in the field, though we had a most informative conversation with home demonstration agent Florence E. Shuerman (Lewis and Clark County, Mont.).

Mechanized rice

RICE PRODUCTION is highly mechanized in California. The crop is seeded on the water via airplanes and harvested by combine-drier methods. The rough rice is handled in bulk. In spite of favorable soil and irrigation conditions in the Sacramento Valley and other California rice-producing areas, production would have been unprofitable except for the introduction of a degree of mechanization which contrasts strikingly with the hand-labor methods of the Orient. Even the weeds are flooded out so that they can't get their first leaves into the air, while the rice can, so hand weeding is passé.

Years ago rice was harvested mainly by binders. This required shocking and subsequent hauling to a stationary thresher. Later rice was combined from the swath, saving some labor, but lowering the quality of the crop. Since 1927 it has become increasingly common for rice to be combined direct from the field, even when it is much too moist to store well. It is then dried to 14.5 percent moisture content. This method, now extending to Arkansas, Texas, and Louisiana, produces high-quality rice and reduces hand labor to the vanishing point.

Incidentally, how many know that Seaman A. Knapp was an intrepid plant explorer in the days before he founded his demonstration farms and the Extension Service? It was he who brought back rice varieties from Asia which saved rice culture in the South at a time when the varieties then grown were proving unsatisfactory.

Precooling grapes

BACK in the early 1890's, when you and I were boys, Newton B. Pierce, then a special agent in the old Division of Vegetable Pathology, Bureau of Plant Industry, wrote a report (Veg. Path. Bul. 2) on the California vine disease. Pierce had become so much interested in this study that he had actually gone abroad at his own expense to obtain information in the Mediterranean region respecting certain vine diseases that resembled the California trouble!

In his report he made a significant statement: "The vine interests of California are of greater national than local importance. Locally, nearly all horticultural interests are large, and the State, though deriving a liberal return from the grape, is not dependent upon it. On the other hand, the entire country is at present almost wholly dependent on California for domestic raisins and wines of the better class. The future will hardly change these relations."

So there is a familiar ring to the opening sentence of Technical Bulletin 899, Precooling California Grapes and Their Refrigeration in Transit, by W. T. Pentzer, C. E. Asbury, and W. R. Barger: Approximately 90 percent of the grapes produced in the United States are grown in California, 2,000 to 3,000 miles from the consumer markets . . . Good refrigeration practices are needed if California grapes are to be delivered to distant markets in sound, attractive condition and in maximum quantities."

Well, this bulletin describes some recent efforts to meet this requirement—and tells of a modified system of icing that saves $26 a car!—JOHN A. FERRALL, PISAE.

Brief but important

Wheat: If you want the low-down on the wheat situation, ask Production and Marketing Administration for the excellent and informative talk (or ask Press Service for 1061) by Administrator Shields, delivered at the annual convention of the Millers National Federation, Chicago, May 14, and procure the Wheat Situation for April–May from Bureau of Agricultural Economics. Wheat production prospects in most importing countries appear to be better than last year, but large imports will continue during 1946–47. If our winter crop turns out as now anticipated, and an average spring crop is obtained, the United States will have another billion-bushel wheat year. This would permit exports of 250 million bushels.

DDT bomb users, attention! Bureau of Entomology and Plant Quarantine says *read the labels of all aerosol insecticides* to find out what you are getting for your money. It has approved no formula for use by the general public that contains more than 3 percent of DDT, for it could then be harmful to human beings. Look for labels indicating that the aerosol has been manufactured under a license issued by USDA to assure its approval of the formula. Aerosols containing pyrethrum with small amounts of DDT, or the former alone, are ideal to kill mosquitoes, flies, and other flying insects in enclosed spaces. It is wasteful to use such aerosols against cockroaches, ants, bedbugs, and other repulsive crawlers.

Processed fruit and vegetable inspection: MP 598, Questions and Answers on Government Inspection of Processed Fruits and Vegetables, is a neat, well-organized publication by two authors in the Fruit and Vegetable Branch of Production and Marketing Administration. The over-all questions answered in detail are: Why Government inspection? What is Government inspection? What are U. S. Standards? How is inspection established? How is labeling related to U. S. Standards and inspection? What is continuous inspection? There is also a list of references.

FAO information service proposed: At the FAO Special Meeting on Urgent Food Problems, May 20–27, Committee 1 on World Food Appraisal recommended that an international food, agriculture, and fisheries service, to be called the FAO Research and Information Service, be established. It would prepare appraisals of the current world food situation, the first one to be issued between September 1 and 15.

Fat pot: Keep that fat you save cold, dark, and well-covered, to preserve its flavor and prevent rancidity. Don't let your surplus dripping pot or grease catcher stand around on the stove. That is bad esthetically, worse from other standpoints.

Two USDA documents revised: No. 6, Important Recent Achievements of Department of Agriculture Scientists, and No. 8, Abridged List of Federal Laws Applicable to Agriculture, have been revised as of July. Write the editors of *USDA* or phone Miss Glick, 5451.

"Greatest untapped markets": "What we want in the world—and what we hope to promote through FAO and other organizations of the United Nations—is an increasingly productive agriculture, balanced by an increasingly productive industry," Secretary Anderson said in an address at the thirty-seventh annual convention of Rotary International in Atlantic City June 5. "Only in that way can there be more food and more products to divide among all of us. Another major aim is that of developing the less-advanced countries. Fully two-thirds of the earth's population haven't the facilities or the techniques for producing enough to eat or wear, and people with a low standard of living are a serious threat to the living standards and safety of the rest of the world. From a strictly business point of view, production and markets can be expanded only if those who are now inefficient and underfed are enabled to do their full share of producing and consuming. They represent the greatest untapped markets in the world." For the whole talk, which is worth reading, ask Press Service for 1207.

Fake veterinary remedies: The Food and Drug Administration, Federal Security Agency, still regulates drugs for veterinary use, under the Food, Drug, and Cosmetics Act. Their periodically published Notices of Judgment give abstracts of actions taken. Recent illegal remedies mentioned under notices 1494 to 1500 were hog liquids, hog tonics, poultry tablets, worm seed, udder balms, worm-control mashes, and miracle remedies for coccidiosis. One of the last consisted of 0.105 to 0.125 grams of strychnine per 100 cubic centimeters. That was all. Another remedy, composed of water and very small quantities of asphalt and sulfonated petroleum derivatives, was said to cure almost every existing poultry disease, and the other frauds had similarly disappointing compositions. If interested, contact FDA.

Committee on Foreign Relations: Secretary's Memorandum No. 1099, Revision 3, says this Department committee is reconstituted as follows: L. A. Wheeler, chairman, Robert B. Schwenger, executive secretary, H. B. Boyd, P. V. Cardon, D. A. FitzGerald, W. Carroll Hunter, W. A. Minor, Robert H. Shields, Lyle F. Watts, and O. V. Wells. This committee advises the Secretary on matters affecting agricultural programs and policies under the Executive Committee on Economic Foreign Policy, established by the President, and makes recommendations to the Secretary on questions concerning international organizations or negotiations, arrangements, or agreements in which the Department has an interest.

Straight or new furrow? George B. German, of Soil Conservation Service, likes poetry but won't stand for poetic license when it comes to soil conservation. At Sunday breakfast recently he noticed a poem, The Straight Furrow, in This Week, national newspaper supplement. Soil Conservationist German abandoned his coffee for a pen, and wrote a poem, The New Furrow. It was published with appropriate comment, in This Week for May 19.

Backward view, wheat department: Isaac Newton, first Commissioner of Agriculture, wrote in his first annual report, covering the last half of 1862: "Health has everywhere prevailed; notwithstanding the temporary transfer of large numbers of our patriotic countrymen from their farms to the ranks of the Army and Navy . . . abundant crops of the cereals and other grains, of grasses, of roots, and fruits, have been garnered. Besides feeding the settled and increasing population of the country and our immense land and naval forces, we have exceeded the exportation of any previous year by over 17,000,000 bushels of grain." Later on he reported the wheat crop of 1859 as 171,183,381 bushels, an increase of 70 percent over a decade earlier, and noted that in 1861 we supplied Britain with 38,361,675 bushels of wheat and flour, or 44 percent of her imports. (Incidentally he predicted that the U. S. would have 100,000,000 population in 1900.) The 1860 wheat crop was 170,170,027 bushels.

Five more Research Achievement Sheets: Four of these report valuable research on sugarcane by the Division of Sugar Plant Investigations, Bureau of Plant Industry, Soils, and Agricultural Engineering. No. 56: New methods of reducing spoilage in sugarcane stalks after cutting are saving half a million dollars' worth of sugar annually in southern Louisiana. No. 57: Hot-water treatment of sugarcane stimulates the plants and controls pests. No. 58: Fall planting of sugarcane increases sugar production. No. 59: Development of sugarcane varieties resistant to mosaic has restored failing sugarcane industry in the U. S.; this research is of world-wide importance. No. 60: Control measures developed by the Division of Forest Pathology, PISAE, are stopping the spread of a deadly fungus disease known as canker stain, found in eastern seaboard cities to attack the London planetree, a valuable shade tree.

Sweetpotato vine harvester: A harvester developed by the Bureau of Plant Industry, Soils, and Agricultural Engineering may provide a cheap, easy way of saving sweetpotato vines for feed. The vines are of little use now except for return to the soil for humus. The new harvester, tested in the field for the past two crops, is inexpensive to build and simple to operate. It harvests vines from a half acre in an hour, and with a light tractor a heavy crop of 10 to 20 tons a day can be harvested. The new harvester is not yet available from manufacturers. Get further information from PISAE.

Watch the garbage cans! Agricultural economists say that Americans have *wasted 125 million pounds of food every day,* even during the war. One-fourth to one-third of this huge waste is in the home; the average family throws out 400 pounds of good edible food each year. Even more important is the food waste on farms, in warehouses, and in stores, because perishable foods don't get to market fast enough. Watch the garbage cans!

Boxcars Take Wings: An interesting article by this title appeared in June Consumers' Guide. The exclusive cargo plane is already on its way to compete with the rail, motor, and water transportation of foodstuffs. Tonnage cargo flown by plane has increased 60 percent in the past 2 years and plans are afoot to increase this many times. Get the Guide to read the whole article.

Emergency Food Collection: Cash donations for famine relief overseas may be sent to this organization, at 100 Maiden Lane, New York City. Checks should be made payable to Lee Marshall, who is chairman of the drive.

New Markets for Flowers: After hearing so much about flours, it is a change-off to have F. L. Thomsen, of Bureau of Agricultural Economics, ably and interestingly discuss new transportation and marketing methods for flowers, in Marketing and Transportation Situation for May, which see by all means if you are interested in better, more varied, and cheaper flowers. For Thomsen says the 400-million-dollar flower industry could easily be increased in volume through adjustments in merchandising methods, price policies, and production, designed to create a mass market. A growing volume of air traffic in flowers would tend to bring in more exotic and unusual species too. But it is of dubious value to write about Thomsen's writing when he is so interestingly and informatively articulate himself.

Lacteal animals: City slickers, who have somehow managed to master the difficult art of identifying a cow as the tranquil beast with a leg at each corner which moos and produces milk, are in for further disappointment. For many of them can even spot the big black and white cows as Holsteins and the fawn-colored ones as Jerseys. Now, as a result of cross-breeding to produce more milk, somewhat on the hybrid-corn principle as applied to bovines, Bureau of Dairy Industry scientists are altering these color patterns in their experimental herds. Such wisely controlled crossing of dairy breeds has produced a 20-percent increase in milk yields—in the first round, that is—as per calculation. More time and a larger number of animals will be required to give conclusive results. This is not random cross-breeding, but a crossing of animals with proved ability to transmit productive capacity. Herds will not be mongrelized but vastly improved.

Two articles you may want to read: The Body's Building Blocks, an article which discusses the composition and nutritive value of proteins, with digressions regarding USDA research; Now They Eat Better in Taos, which shows how the medical co-op sponsored by Farm Security Administration, in Taos County, N. Mex., tries to improve the diet of local Spanish-Americans. The former is in the Medical Record and the latter in the Journal of the American Dietetic Association, April issues in both cases. A limited number of reprints are available; address T. Swann Harding, Office of Information, Department of Agriculture, Washington, D. C.

Streptomycin: In *USDA* for January 8, 1945, there was an article entitled "Biotherapy," in which the work of Selman A. Waksman, of the New Jersey Agricultural Experiment Station, on extraordinary antibiotics, was discussed. Again *USDA* was out in front. Look up the editorial entitled "Streptomycin" in International Medical Digest for April 1946, and read how the work of Waksman and associates fits into the general picture. Streptomycin was isolated from the soil organism *Actinomyces griseus,* and its therapeutic reputation has grown by leaps and bounds.

"Goop" on the farm: Michigan Extension Service reports that goop, a magnesium dust which, with asphalt and tar, was used in incendiary bombs in wartime, may have peacetime value for agriculture. Used at the State College to help the burning of orchard brush, goop kept the fire going at a high temperature. Orchardists have found the burning of brush a problem, as much cut brush is green and does not burn well. Goop, which has a consistency like that of heavy clay, may also prove useful to heat orchards during low temperatures.

Lawn trees need tonic: Trees also get listless and dull in the spring. They too suffer from spring fever and don't feel like leaving . . . going anywhere, that is. They often get very thirsty too. They need leaf mulch to hold the moisture in the soil around them, if they live on lawns, in yards, or in the streets. Then a pining, undernourished tree that looks queasy can do with a pound of ammonium sulfate per 800 square feet of ground surface, monthly, May through August. It will appreciate a pound of bonemeal per 15 square feet of ground in November too. But we can't give you all the details here. A 1-page leaflet, Care of Trees (K-3), is available from the Division of Information and Education, Forest Service, and FB 1826, Care of Ornamental Trees and Shrubs, from the Department Office of Information.

The Farmer and Social Security: Such is the title of an article in Social Forces for March. The author, Earl E. Muntz, New York University, takes rather a bleak view of farmers being able to contribute sufficient to finance a national system of social security without subsidy. He figures about $56 a year per family, at least, would be required, whereas Dr. Helen Jeter, Bureau of Human Nutrition and Home Economics, has said that $100 a year would be needed to finance a fairly complete medical service only for the average farm family. Muntz winds up that much more research should be done before a system of social security is extended to farmers.

The purple on that meat: You may be interested in the United States purple stamps on meat. The circular stamp indicates inspection; the lettering shows grade, and 11 billion pounds of meat are graded annually. Pork is not graded mainly because it varies less in quality than do other meats. Highest grade is Choice, then come Good, Commercial (pot roast and stew meat), and Utility, low-priced meat also appropriate for stew, hash, and other inexpensive dishes.

Vegetable Tailors: This is the title of an article in American Cookery (11 East 44th, New York City 17) discussing the work of plant specialists who develop foods that will process better and have higher nutrient content. Work by the following USDA laboratories is mentioned: U. S. Soil, Plant, and Nutrition Laboratory, Ithica, N. Y.; U. S. Vegetable Breeding Laboratory, Charleston, S. C.; U. S. Regional Pasture Laboratory, State College, Pa.

Conserve, Reduce, and Educate: This is the 3-point food-conservation program followed by 53 Government cafeterias in Washington, which have reported large savings in use of flour, fats, and oils. There are daily average savings of 57½ gallons of oil, 347 pounds of fat, and 1,242 pounds of flour.

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USDA

FOR JULY 22, 1946

Evergreen playground

THAT'S what some of the boosters call the State of Washington, though parts of it are far from evergreen and would not make playgrounds. You can find localities a hundred miles apart differing in annual rainfall from 120 inches to 8 or 10. You can find parts that look like Dakota Badlands. But the State has many beauties, also too much evidence of magnificent primeval forest despoiled and desecrated.

No Washington USDA Club meets like that of Helena, in a basement room of the Montana Club which stands immediately over the spot where gold was first discovered in Last Chance Gulch, now Helena's main street. But the clubs do meet and have enthusiastic support. Some agencies are well represented, but others stand off and their personnel rarely appear. W. L. Popham, Assistant Chief of Entomology and Plant Quarantine, was present when the *USDA* editor talked to the Spokane Club, of which John Browning, of Production and Marketing Administration, is the efficient president. State PMA Director C. P. Downen is a true philosopher and a wise and ready conversationist.

In Yakima one of the most interesting workers is the elderly farmer, John Dobie, who has been triple–A county chairman for some time. We also had the pleasure of meeting Farm Security county supervisor Wistar Burgess, county agent M. F. Bunnell, some of E. J. Newcomer's associates in EPQ, and personnel of various branches of FMA.

The Seattle USDA Club was found to be especially enthusiastic, ardent, and responsive. Laurence T. Ryan, a PMA marketing specialist, generously took us on a quick tour of all agency offices in the city to check up on the distribution of and reaction to *USDA*. A similar hurried survey was made at all other stops.

The Southern Puget Sound USDA Club is strung out over 30 miles and embraces employees in Olympia, Puyallup, Sumner, Shelton, Chehalis, and Tacoma, yet turns out a goodly crowd to meetings. Dr. Mansel O. Barnes, of Bureau of Animal Industry, was our special guide and taximan and is also the capable chairman of the USDA Club. We visited the Western Washington (State) Experiment Station outside Puyallup, where BAI men work as well.

In general *USDA* is well distributed, but some agencies still do not get it to all field stations, and in other cases addresses mysteriously drop off the mailing list and no inquiry is made. Those who do get the house organ profess to like it. *Field agencies please write in to the editor of USDA if you are getting an insufficient number of copies or if your names vanish from the mailing list. You are not meant to be slighted. Office of Personnel wants to get USDA to each and every employee everywhere.*

Management conference

THE Hon. R. R. Zimmerman, Administrative Assistant to the President for Personnel Administration, was the principal speaker at this fiscal year's closing session of the USDA Organization and Procedure Conference held June 5 in the auditorium. He was introduced by Personnel Director Reid, who summarized Mr. Zimmerman's experience in the management field, which has included setting up and administering a broad management and personnel program, with private oil interests, and former positions as personnel officer of the Home Owners Loan Corporation, executive assistant to the Council of Personnel Administration, and national president of the Society for the Advancement of Management.

Mr. Zimmerman's topic was More Teamwork in Management. He compared the relations of line and staff activities in the Government to a football team—coaching, planning, calling the signals, and carrying the ball all having their part in the teamwork necessary to win the game. In the Government. he says, our line operators carry the ball but our staff services make this possible. He emphasized staff *services* and pointed out that staff offices are not an end in themselves but a means to an end and to be effective must give line service. He stated that the need for clearer understanding of line-staff relationships and more teamwork is paramount to greater management progress in the Federal Government. As A. James Martin, conference chairman, said, "We are most fortunate to have in the White House, representing the Federal employees' welfare, a person so able and so interested in personnel administration."

School Lunch Act

SCHOOL LUNCH came to stay June 4, when the National School Lunch Act, to be administered by the Department, was approved by the President. Program activities will be carried on under the jurisdiction of the Production and Marketing Administration.

The amount to be expended in carrying on the program is to be determined by annual appropriation. After setting aside $10,000,000 for nonfood assistance, the Secretary must apportion among the States not less than 75 percent of the remainder of the sum appropriated during the fiscal year. The States will provide funds for the program on the basis of $1 for every Federal dollar from the fiscal years 1947 through 1950, $1.50 for each dollar from 1951 through 1955, and $3 for every dollar after that time. If the State per capita income is below the national per capita income, the amount contributed by the State will be decreased by the percentage it is below. Administrative expenses must not exceed 3½ percent.

Lunches served must meet minimum nutritional requirements prescribed by the Secretary on the basis of tested nutritional research.

Not only school children but also the Nation's farmers benefit under the school lunch program, for it has helped to make good use of agricultural abundances that might otherwise find no market. Particular consideration must be given on school lunch menus to foods abundant nationally or in the school area. Now, in addition to food available

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under section 32 funds (Public Law No. 320, as amended), direct distribution will be made of food purchased by money provided under the act.

While various Government agencies were interested in the program before 1930, particularly in rural areas, it was not until the depression years when the dangers of malnutrition became so widespread that school lunches in the United States were expanded and Federal aid was enlisted. Agricultural surpluses arising at the same time offered a means of meeting, at least partially, the nutritional needs of school children.

The first recorded school lunch program was started in Munich, Germany, in 1790, when municipal soup kitchens established for the unemployed served needy school children as well. In France the school lunch movement started in 1849 when the National Guard in Paris donated money to assist poor children in obtaining an education. This became the nucleus for funds which later included expenditures for school canteens, and the movement soon spread to other districts. Holland, in 1900, provided food and clothing for its poorer school children, and in 1906 the same idea was taken up by Switzerland.

England became interested in school lunches during the Boer War in 1902, when it found that only two out of every five men were physically fitted to become soldiers. Later, nearly all school authorities in England and Wales provided meals or milk for their children. Similarly, school lunches have been provided by national or municipal legislation in Scotland, Denmark, Italy, Finland, Austria, Belgium, Russia, Spain, Germany, Norway, and Sweden. In the late 1920's school feeding was started in Latin America and is now available through Government support in many Latin American countries.

Copies of The National School Lunch Program—A Challenge and an Opportunity, an address by Robert H. Shields, may be obtained from Information Service, PMA.

Goals and price committee: The recently established 1947 Goals and Price Coordinating Committee consists of: H. B. Boyd, Production and Marketing Administration, chairman; Phillip F. Aylesworth, Dave Davidson, C. C. Farrington, D. A. FitzGerald, E. A. Meyer, PMA; Joseph A. Becker, Office of Foreign Agricultural Relations; O. V. Wells, Sherman E. Johnson, Bureau of Agricultural Economics; Paul Kepner, Extension Service; W. A. Minor, Office of Secretary; R. Y. Winters, Agricultural Research Administration. Plans are in the mill for the annual Outlook conference October 7–12.

REA exchanges ideas

ALTHOUGH Rural Electrification Administration has no field offices, its four "line" divisions maintain personal contact with borrowers of REA loan funds through fieldmen who travel among the co-ops and other borrowers. However, its contacts in the Pacific Northwest are maintained through a liaison office in Portland, Oreg. In the past year, with farmers clamoring for electric service and REA rolling a 10-year loan program into 12 months, this field staff has expanded from its wartime low.

At a series of recent meetings in Amarillo, Tex., Cave City, Ky., and Chicago, new and old fieldmen exchanged ideas with each other and with REA officials from Washington headquarters. Administrator Claude R. Wickard, Deputy Administrator William J. Neal, division chiefs, and regional heads attended.

In three hard-working, 12-hour days, the group drove through almost the whole field of REA policy and program. Fieldmen reported continued enthusiasm among REA cooperatives for area-coverage rural electrification, despite handicaps of materials shortages and renewal in some areas of power company "spite line" and "cream skimming" tactics that marked the late 1930's.

REA recommended that its borrowers purchase all the materials used for line construction projects and ask contractors for bids on labor costs only, rather than on labor and materials as under former procedure. The new arrangement, proposed because of the uncertainties of the materials situation, is expected to reduce construction costs and attract new contractors into the rural electrification field.

Another proposal discussed was that REA-financed co-ops work out plans for crediting each individual consumer with his proportionate share of co-op net worth on the basis of his monthly power bills.

The fieldmen's meetings set the stage for a series of 33 conferences in June and July of REA personnel with representatives of REA borrowers. Managers, bookkeepers, and representatives of the Boards of Directors of REA-financed systems attended the first day's general session and the following 3 days of schooling for bookkeepers in REA accounting procedure.

4-H Club Camp

IN KEEPING with their objective, "learning to live in a changing world," the 180 4-H Club boys and girls from all parts of the country who attended the Sixteenth National 4-H Club Camp in Washington, June 11 to 18, made comprehensive recommendations for development of the 4-H program.

Eight committees, which had made special study of the national 4-H guideposts during the camp, submitted suggestions at the final assembly, which were unanimously adopted by the boys and girls.

"If we understood the aims and ambitions of other nations and they understood our intentions, much of the international distrust and suspicion would be eliminated." the delegates said.

To promote international good will, they suggested (1) discussions in local 4-H Clubs on understanding parents, "since the foundations of a stable Government depend upon peace in the home," (2) study by 4-H Clubs of the United Nations, (3) 4-H gifts of clothing and food for needy people in devastated countries, (4) exchange of letters between 4-H Clubs and foreign individuals and families, (5) 4-H scholarships for foreign students to study in this country, and (6) an addition to the national 4-H Club pledge so that each member will pledge his loyalties to "my world," as well as "my club, my community, and my country."

Stating that this country has taken its natural resources for granted and has destroyed some of them, the delegates suggested a program of individual and group action by 4 H'ers to save soil, promote good forestry, propagate wildlife, and achieve conservation in other ways. "Developing talents for greater usefulness," "joining with friends for work, fun, and fellowship," "choosing a way to earn a living," "producing food and fiber for home and market," "creating better homes for better living," and "building health for a strong America" were other subjects covered in the recommendations adopted.

Record FSA loans to vets: A high record in Farm Security Administration loans to veterans was reached in March-April-May, when 7,100 ex-servicemen were financed to buy farm-operating equipment or family farms. The loans for these 3 months were nearly 39 percent of the number approved for veterans during the past 2 years, according to Administrator Dillard B. Lasseter, who said he expected this record lending to continue.

"Writing Hints"

THERE was a "Brief but important" item on page 4 of *USDA* for May 13 which bore this title. It related to a paper entitled "They Understand Not One Another's Speech" which the editor of *USDA* delivered before the American Cereal Chemists Association in May 1944. The author originally received a hundred reprints which he offered to share with readers of *USDA*, but demands were so heavy, these were soon exhausted. The item in our May 13 issue had reference to a new hundred which it was supposed would satisfy all who wanted to see this material. That supposition was again unwarranted as further requests came in which we could not fill.

The material has therefore been mimeographed and can be supplied in that form to those who still want it and feel up to writing in for it. It deals primarily with the preparation of scientific and research papers, though there are probably some hints which would be of use to writers of more popular articles and reports. Just ask for this by title.

It also seems wise to mention here a paper, entitled "Translating Agricultural Research Into Readable Newswriting," which the editor of *USDA* delivered before the Publications Workshop, held by Extension Service and the University of Connecticut at Storrs, January 30–February 1, 1946. In *USDA* for March 18, copies of this were offered to readers; again we underestimated demand and we have some unfilled orders. This material has been mimeographed and a new lot run. It deals primarily with the writing of feature articles for magazines and newspapers. Copies can be supplied to those who write in.

Just address T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C.

Does USDA suit you?

ONCE AGAIN the editors of *USDA* would like to have your candid answers to this question. Write in, signing your name and agency, and say what you don't and what you do like about the house organ.

In the past we have tried diligently to ascertain the opinion of our "public" by personal interviews and questionnaires which have pretty well covered the entire country, field and Washington alike. We have also pursued the inquiry by indirection, asking others to tell us how others still speak of *USDA*.

We have tried to be guided by the opinion samplings we received. Features that were unattractive to a majority of readers were omitted; features like the very popular BBI's on the back page which pleased readers were enlarged. At one time we thought the house organ should be larger, more frequent in issue, and illustrated. Such findings as we can make now convince us to the contrary.

Insofar as we have been able to discover, readers like *USDA* in its present form, unillustrated, packed with reading matter, varied in subject matter, but always concise. However, our opinion samples have been by no means fully adequate. We should greatly appreciate hearing from more of you. Write in utmost candor, merely addressing Editor of *USDA*, Office of Information, Department of Agriculture, Washington 25, D. C.

Brief but important

John Baker leaves: Mr. Baker, Assistant Director in Charge of Radio in the Office of Information, has left the Government service. He is starting a farm script service for sale to radio stations, and is associated with Samuel L. Veitch, publisher of the National County Agent Magazine. This service, to be called "Your Farm Neighbor Program," will start about August 1. Kenneth M. Gapen, western radio adviser and director, took over. Ken received his B. S. at Kansas State in agriculture, and his M. S. in agricultural journalism at Wisconsin, where he worked from 1930 until 1935, when he entered USDA to write Farm Flashes and spend 3 years as a soil-conservation regional radio man, after which he proceeded to his Information job in San Francisco. He was in Washington a while back to fill in a few weeks before Baker assumed charge.

Think of this: We are indebted to the Press Service's Clip Sheet for the information that it takes about 38,000,000 bee visits to enable the insects to set the 500 pounds of seed (225,000 to the pound) ordinarily produced by an acre of alfalfa when grown for seed production. We also learn that lespedeza was originally regarded as a harmless weed in Georgia, though destined to become an important crop worthy of centennial honor. It almost came into its own as a crop 80 years ago, but circumstances were against it. Obviously its first hundred years were the hardest and it will undoubtedly do better during the next century. As a soil renewer and binder it is dear to the heart of conservationists today, and rightly.

Rockefeller Foundation and agriculture: Two interesting pieces of work supported by Rockefeller Foundation grants, and described briefly in The Rockefeller Foundation, A Review for 1945, by Raymond B. Fosdick, president, are agricultural in nature. One concerns the study and improvement of corn, wheat, and beans grown in Mexico; the other concerns animal husbandry studies carried on by the University of Iceland. The report, mentioned above, is procurable from the Foundation, 49 West 49th St., New York City.

Home canning: July 15–22 was designated as National Home Food Preservation Week. During the war Victory Gardens produced more than 8 million tons of food a year, and housewives preserved 3½ billion quarts of fruits and vegetables annually. In view of world food shortages, we must reach or—better still—exceed these achievements. Cooperating in the program for Victory Gardens and home food preservation are consumer and trade groups, Famine Emergency Committee, National Garden Institute, National Red Cross, and other interested groups. Urging home food preservation by American homemakers, Secretary Anderson said: "The war years are behind. In front of us is the task of retooling for peace." The Publications and Distribution Control Office has a fact sheet, Home Food Preservation Program for 1946; ask for PA–13.

Propinquity: Over and over again you hear field people fervently wish that all agencies of the Department represented in their community had their offices right together in one building. Few things create so much ill-will as to have citizens routed all over town to get a little service. Few help cement cordial relationships among USDA agencies so much as living together in close physical contiguity. Today the widespread physical separation of USDA agencies in certain communities cannot be helped. But let us hope that the time will soon come when citizens in need of service will feel the local impact of a unified Department, its agencies all housed under one roof and working harmoniously to the same ends.

FSA medical officer: Dr. Mark V. Ziegler succeeds Dr. Frederick D. Mott as chief medical officer of Farm Security Administration. Dr. Mott resigned to become chairman of the Health Services Planning Commission in Saskatchewan, Canada. Dr. Ziegler was commissioned an officer in the Public Health Service in 1917, and has served in various branches of medical work both in the United States and abroad. For 6 years, with the States Relations Division of PHS in Washington, he helped administer Federal grants-in-aid to States for health services under the Social Security Act. During World War II he served for 2 years as medical director for the Training Organization of the War Shipping Administration, and for the past year was detailed to the War Department as medical director and liaison officer for the Third Service Command.

Sugar Branch personnel changes: James H. Marshall has succeeded Earl B. Wilson, resigned, as Director of the Sugar Branch, Production and Marketing Administration. Mr. Marshall, who was born in 1911 in Tennessee, has been with the Department for the past 10 years, and was formerly assistant director and then acting director of the branch. He has specialized in sugar and other commodities. Lawrence Myers, who has been in the Department since 1927, working on basic commodities, is now assistant director of the branch.

Fertilizers: MP 586 is entitled "Fertilizers and Lime in the United States—Resources, Production, Marketing, and Use." It was issued in May and was prepared at the request of the Committee on National Fertilizers and Lime Policy of USDA-WFA. It is a straight factual review with a tabular appendix, and is fully documented.

Hartman and Cary's nutrient X: This as yet unidentified food factor appears to be a vitamin and apparently plays an important role in effecting food palatability. A. M. Hartman and C. A. Cary, of Bureau of Dairy Industry, have been studying its importance for some time. It is present in several milk products, also in lettuce, egg-yolk, beef and pork muscle, bluegrass and alfalfa, and alfalfa and timothy hays. Rats died on high-protein diets without X, but lived and grew fairly well if it were supplied. Liver extract is a rich source of the X factor. Experimental animals find diets unpalatable if X is lacking, though if it is injected into them via liver extract, they eat such "unpalatable" diets with relish. Ultimately Hartman and Cary hope to solve the mystery of X and remove it from the "unknown" category.

Fifty-four years of service! On March 18, 1892, Francis J. P. Cleary entered the Office of Information as a messenger. On June 30, 1946, he retired at age 70 from his position as head of Inquiries and Distribution Service, Information, after 54 years and 3 months of service. Mr. Cleary not only didn't look 70 years old, he beat some employees much younger than he when it came to hard work. For nearly 30 years he had been in charge of distribution of publications for Information. One important phase of his work was supervision of the congressional distribution. The only person, so far as we know, whose service in USDA was longer than Mr. Cleary's was Thomas A. Keleher, who retired in 1938 from the Bureau of Entomology and Plant Quarantine after 54 years and 11 months in EPQ.

Burned Timber Builds No Homes: This is one slogan for a Nation-wide campaign to prevent man-caused forest-fires in 1947. The other is: "Please, folks, be extra careful this year. Remember, only you can prevent forest fires." Forest Service and the State Foresters Association announced the campaign, in which are cooperating also the American Forests Products Industries, Inc., American Foresters Association, and American Red Cross. The number of recreation seekers, campers, fishermen, hunters, hikers, trail riders, and so on, is expected to be larger than ever this year. But the past 2 years, during which campaigns like this 1947 one were carried on, have shown a steady drop in the number of forest fires.

Superior employees: The following have received promotions and pay increases for outstanding accomplishments: Ethel E. Smith of the Library; Carl S. Clancy, Robert T. Hall, Mrs. Dorothy L. Sutton, Wiliam S. Avelar, and Robert U. Cobb of Forest Service; Genevieve M. Boedine and Robert A. Reed of Soil Conservation Service; Dr. John A. Carlson of Production and Marketing Administration; Dalys L. Berry of Bureau of Animal Industry; and A. Frederick von Schulz of Agricultural Research Center. More power to the whole lot of them. Would we had space to expatiate on their accomplishments in detail.

Stine named BAE Assistant Chief: Dr. O. C. Stine, who has been in charge of statistical and historical research in the Bureau of Agricultural Economics since 1922, has been named Assistant Chief of the Bureau. He now supervises and directs all BAE divisions conducting economic research in prices, income, and marketing. Dr. Stine, who was born in Sandyville, W. Va., in 1884, came to USDA in 1916 as an assistant in farm economics in BAE. He lives in Washington and operates a dairy farm in West Virginia.

Oregon Experiment Station: While we were en route from Corvallis to Portland by bus one Sunday afternoon, Dean William A. Schoenfeld of Agriculture at Oregon State gave a quick briefing on important research carried on by the Oregon Agricultural Experiment Station. Its workers have devised a quick, accurate method for determining vitamin A in shark liver; they have found out how to can clams and milk together for later use in clam chowder, without a curdle, and how to quick-freeze crabs without injuring taste or texture of the succulent leg meat. They are using Army-Navy fog machines to dispense insecticides with remarkable efficiency, covering 58 acres in 15 minutes. They are learning to "anesthetize" apples during shipment and to promote natural ripening of pears and apples shipped green, day by day as needed for sale from storage after shipment. These things and many more, they are doing with great skill.

Rutin: The full story of this remarkable drug, developed at our Eastern Regional Research Laboratory, is gradually being unfolded. Known as a chemical substance for more than a century, its therapeutic value was unexplored until USDA researchers prepared it from tobacco (later from buckwheat) and noted its similarity to vitamin P. In addition to preventing stroke by remedying capillary fragility, it has now been found useful in persistent nosebleed, retinal hemorrhage, diabetes-associated inflammation of the eyes, and other diseases of hemorrhagic tendency. Dr. J. Q. Griffith, Jr., of University of Pennsylvania Medical School, cooperates with Dr. J. F. Couch of the eastern lab in experimental and clinical tests.

Personnel Ceiling Board: Secretary's Memorandum 1164, June 14, establishes this board with the following members: W. A. Minor, Assistant to the Secretary, chairman; W. A. Jump, Director of Finance; and T. Roy Reid, Director of Personnel. This board will carry out within the USDA the provisions of the Federal Employees Pay Act of 1946, and requirements of the Budget Bureau thereunder, with respect to personnel ceilings and the establishment of certain over-all limitations on Government employment for each quarter beginning October 1.

Books & Papers: You will find Caroline Sherman, editor of the Land Policy Review, Bureau of Agricultural Economics, producing excellent reviews of rural fiction, including her always stimulating reflections and evaluations, in each issue of The Land. Her own and reviews by others also appear under the heading given. A section of The Land called "Foreign Correspondence" is edited by Walter C. Lowdermilk of Soil Conservation Service.

Allee heads Inter-American Institute: Ralph H. Allee, Assistant Chief of the Technical Collaboration Branch, Office of Foreign Agricultural Relations, leaves to become Director of the Inter-American Institute of Agricultural Science at Turrialba, Costa Rica. Mr. Allee, who has been with FAR for 5 years, succeeds Dr. Earl N. Bressman at Turrialba. Dr Bressman was formerly in FAR.

Shields on GS board: Robert H. Shields, Administrator of Production and Marketing Administration and President of Commodity Credit Corporation, has been named a member of the Graduate School General Administration Board, to replace John B. Hutson, who resigned.

New A. S. A. E. head: Dr. Mark L. Nichols, chief of research in Soil Conservation Service, is the new president of the American Society of Agricultural Engineers. He pioneered in the study and design of modern soil conservation and tillage methods, and fathered the Nichols terrace, now used by thousands of farmers all over the United States. His extensive researches have also determined the effects upon soils of various tillage practices, farming patterns, and farm implements. Methods he used proved of value to Army Ordnance in World War II in working out principles of track design. He is a graduate of Ohio State with an M. S. from Delaware University and an honorary D. S. from Clemson. He entered SCS in 1936 and, since 1940, has coordinated its many phases of soil and water conservation research. He received the McCormick Medal in 1934.

Disdainful goddesses: Many of the goddesses who man the outer portals of our field offices are haughty and disdainful towards chance visitors, viewing them with unwarranted suspicion, as if afraid they came in to sell a bill of goods or to collect for a home for aged cats. Even after due identification, some visitors are treated brusquely by the higher personnel of some field agencies, as if the office were just too, too busy to monkey with them and their small affairs. Some reformation of this habit would be warranted and helpful. Not only may a really important personage sometimes be offended by laxity and discourtesy, but the public deserves better of us than that. The public pays us. We are its servants. It behooves us to be polite and cooperative servants, and to suffer strangers gladly.

The Aspergilli: Charles Thom, retired USDA employee, and coauthor Kenneth B. Raper have issued a Manual of the Aspergilli, a wholly different book from Thom and Church's monograph on The Aspergilli issued in 1926. The new volume has provoked highly commendatory reviews not only here but elsewhere—vide Nature (London) April 13, p. 462.

Gilmer leaves Department: Jesse B. Gilmer, Deputy Administrator of the Production and Marketing Administration and Vice President of the Commodity Credit Corporation, since April 1946, leaves to return to private business in Texas. Mr. Gilmer entered Government service in the Bureau of Animal Industry in 1932, and served successively in the Agricultural Adjustment Agency, former Resettlement Administration, and Farm Security Administration; then as CCC Secretary and Executive Assistant to the CCC President and later as Director of the PMA Budget and Management Branch.

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USDA

FOR AUGUST 5, 1946

Qualifications of a research worker

A WHILE BACK Dr. Albert W. Hull, of the General Electric Company's research laboratory, delivered an address in which he expounded the qualifications and characteristics which make a good research worker. Insofar as his company is concerned: "*Character* is the most important qualification. It is rated first in the hiring and retaining of personnel." Under that heading he included the following individual virtues: Self-discipline, courage, tolerance, honesty, and generosity.

Honesty is extremely important, sincerity and frankness included. Not only must a research worker refrain from deceiving others; he must be careful not to deceive himself. The unpardonable sin here is the wishful interpretation of data. That weakness can wipe out a research worker's usefulness almost quicker than any other. "The man who is more anxious to prove that he is right than to find the truth will nearly always arrive at a conclusion in accordance with his wishes." Facts must be faced impartially.

The virtue of generosity is essential in every scientific worker who forms part of a large laboratory or a great institution of research like USDA. Each individual must share fairly and generously with his fellows. "One or two ungenerous men can poison the mutual confidence in a laboratory. Jealously and greed and suspicion are weeds that grow easily, while cooperation is a delicate flower. Sometimes it is possible to isolate a single individual of exceptional qualifications and treat him as a prima donna, but only a genius is of much value as a prima donna."

Friendliness, lack of friction, sharing of information and credit, easy consultation, are all highly important in every laboratory. Ability, aptitude for research, imagination, analytical power, curiosity, acute observation, and a passion for basic essentials are all qualities to be weighed heavily in the selection of research personnel. Without imagination a man is unlikely to solve any but the little problem assigned. Without analytical power he cannot draw sound conclusions from his experiments. Without curiosity research becomes a tiresome routine. Tremendously important is it for a man to love his work, for unless he does he cannot become outstanding. Last of the helpful qualifications considered by Dr. Hull is breadth of knowledge.

So well thought out and so thought compelling was Dr. Hull's address that it almost offers a brief from which young research workers might be selected for service. Those interested may find the entire address in Science for February 16, 1945.

World food output

THE WORLD food outlook was just a little better in mid-June. So said our Office of Foreign Agricultural Relations with cautious optimism. If conditions grow no worse before harvest, the world's 1946–47 food output should exceed the relatively low levels of 1945–46, though it would remain below prewar levels, particularly on a per capita basis. Preharvest food stocks are very low. In consequence total food available in 1946–47 will not greatly exceed figures for the previous year. We must continue to use food with frugality.

European crop prospects indicate a harvest somewhat better than a year earlier, when crop production was seriously reduced by drought and war devastation. Even then not more than 88 to 90 percent of the prewar output can be anticipated. Conditions in the Far East have generally been unfavorable for planting 1946–47 crops. Greater rice acreage than last year is expected in southeastern Asia's surplus-producing areas, yet plantings are only two-thirds of prewar.

Insufficient rains prevented as great an increase in Australian wheat acreage as was planned. Rice prospects have somewhat improved in Brazil and Ecuador, while grain-acreage expansion is anticipated in the Argentine. Food distribution has deteriorated in some parts of the world but gradual improvement is a natural expectation.

Around Portland, Oreg.

THE DEPARTMENT has a large outpost at Portland, over 600 employees. They are to be found, if one has the patience and endurance, in 23 different spots in 8 or 9 buildings, every one of which was visited recently in the endeavor to check up on the distribution of *USDA*, which proved a bit spotty but better than might have been anticipated. Forest Service, Production and Marketing Administration, Bureaus of Entomology and Plant Quarantine, of Agricultural Economics, of Animal Industry, and of Plant Industry, Soils, and Agricultural Engineering, Farm Security Administration, and Soil Conservation Service are all generously represented. The library has a branch, Rural Electrification Administration has its sole liaison office, and the Office of the Solicitor also has an office here.

The USDA Club is vigorous but not as big as one might expect, because the offices are so scattered and some agencies take little part in it. However, 40 to 75 usually attend meetings. A crying need is that USDA building Arthur Thatcher (Plant and Operations) has been trying, so far unsuccessfully, to provide so that all our employees may be housed together, thus promoting both sociability and efficiency in the transaction of public business. The building will yet appear if priorities permit.

The USDA group at Corvallis was decimated by the removal of PMA's Field Service Branch to Portland. It took along half the club membership and several top officers. It was a pleasure, however, to see, in a sort of residuary USDA Club meeting, Extension Editor John C. Burtner (he changed jobs about July 1), former editor Edwin T. Reed, Dean William A. Schoenfeld (also Director of Extension and of the Experiment Station and a former assistant chief of Bureau

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of Agricultural Economics), Fred Shideler, of agricultural journalism at Oregon State, Sam Sloan of Soil Conservation Service, and a few others.

Vancouver, Wash., is only about 8 miles from downtown Portland. With a normal population of 30,000, it doubled in size during the war but is now back to about 38,000. Headquarters of the Columbia National Forest were visited in the courthouse, as well as Extension Service, Farm Security Administration, and county Agricultural Adjustment Agency people. The only other agency in town was one scarcely recognized anywhere as belonging to USDA, though it comes under Farm Credit Administration—a National Farm Loan Association, which also was visited. The USDA Club is moribund, unfortunately. There was striking evidence everywhere that *USDA* gets around, is read, and meets with appreciation and approval.

Lettuce on hot spot

ONE of the important new vegetable introductions of the Department is a very curly, long-standing, heat-tolerant lettuce of the leaf type, that has been named Slobolt for the very good reason that it "bolts" slowly, from 2 to 4 weeks later than ordinary leafy kinds. It is sufficiently tolerant to heat to be grown successfully in many localities where ordinary lettuce cannot be grown.

Slobolt is the work of Dr. Ross C. Thompson, lettuce breeder of the Bureau of Plant Industry, Soils, and Agricultural Engineering, over a trying period of years. In the course of his attempts to develop a head lettuce that could be grown successfully in warm sections, he finally located a single plant that displayed outstanding slowness in bolting to seed in warm weather. This was derived from a hybrid between the Grand Rapids variety of leaf lettuce and a small butterhead variety from France. It was commercially worthless, but Dr. Thompson knew he could use its resistance to heat—its slow bolting character—to provide that heredity character for commercially valuable sorts. Slobolt is the very promising result. It is already being called "*the* USDA gift to market and home gardeners." One Oklahoma grower writes enthusiastically, "I shouldn't be surprised if it proves to be the most valuable variety developed for the rank and file of home gardeners in this locality."

And the home gardener is going to be especially interested in the longstanding feature of Slobolt. It has been found that if the plants are set 10 to 12 inches apart and only the basal leaves used as they reach desirable size, lettuce may be harvested from the same Slobolt plants over a period of several weeks.—JOHN A. FERRALL, PISAE.

Newly revised documents

THE Office of the Solicitor has completed its annual revision of *USDA* Document No. 8, Abridged List of Federal Laws Applicable to Agriculture. New copies dated July 1 are now available. The document gives in brief and in chronological order concise digests of and legal citations to basic laws dealing with the structure, functions, and responsibilities of the Department. It stretches from March 3, 1839, to April 30, 1946, and is useful for handy reference.

The new semiannual edition of *USDA* Document No. 6, Important Recent Achievements of Department of Agriculture Scientists, also came out dated July 1. The material was sent in by our scientific agencies—Agricultural Research Administration, Forest Service, Soil Conservation Service, and Bureau of Agricultural Economics. These brief, varied, popular accounts of recent research findings are especially useful to writers and editors.

To procure in Washington, phone Miss Arnold, 4875; in the field, address T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C.

Sheep experiment station

DAMON A. SPENCER, who had a hand in the development of both the Columbia and Targee breeds of sheep, primarily adapted to western intermountain ranges, recently returned from the U. S. Sheep Experiment Station in Dubois, Idaho. While there he participated in a special field day program arranged by the station, Western Sheep Breeding Laboratory, and Forest Service's Intermountain Forest and Range Experiment Station. It was held May 24. Eighty automobile loads of people, 300 persons in all, attended, and breeders displayed great enthusiasm regarding the work being done in Dubois.

The Bureau of Animal Industry administers the station and conducts the sheep-improvement program. The Forest Service cooperates and is responsible for the range-improvement program. The BAI station covers about 50,000 acres (bigger than the District of Columbia), and is attractively situated near mountain ranges and close to the Montana border. The field day included a tour of the range, followed by examination and experimental shearing of rams of different breeds and ages. The program concluded at 5 p. m., but many remained to visit the laboratories during the evening. The zeal for information displayed by the visitors was heartening to USDA specialists.

One of the visitors was charged with the mission of purchasing a Rambouillet ram, for an Ohio breeder of Merino sheep. This mission was successfully carried out and the purchaser wired his principal: "The 'dambullet' ram Atomic Bomb will fall on Centerburg, Ohio, on request." General approval of the Department's breeding and range work was loudly evident. At the Dubois station is one of the Bankhead-Jones Laboratories mentioned in *USDA* for January 22, 1945. Spencer is in charge of BAI's sheep, goat, and animal-fiber investigations.

FitzGerald

EVERY TIME you turn around it's a new set of initials, but, as we mentioned earlier, the Combined Food Board met June 20, voted to abolish itself effective immediately, and then to establish the International Emergency Food Council until December 31, 1947. The White House announced appointment of the Combined Food Board on June 9, 1942. It then consisted of the head of the British Food Mission and the Secretary of Agriculture, and its job was to effect planned, expeditious utilization of the food resources of the United Nations. On October 29, 1943, Executive Order 9392 made the War Food Administrator the U. S. member, the Secretary of Agriculture neutral chairman of the board, and invited Canada also to appoint a member. Twenty nations participate in IEFC.

Lean, gray, 43-year-old D. A. FitzGerald, USDA's Director of Requirements and Allocations, was named secretary general of IEFC. He perhaps knows more than anyone else in the Government about actual food conditions in foreign lands, and was the only Federal official to accompany former President Hoover on his global surveys. Born in Saskatchewan, Dr. FitzGerald was educated at the university of that province

in Saskatoon, at Iowa State, and at Harvard. He came to the Department in 1935 from the Brookings Institution in Washington, D. C., to undertake research in agricultural economics.

His work in the Department has ranged from livestock planning to coping with world famine conditions. In the Office of Requirements and Allocations, Production and Marketing Administration, he supervised determination of claimant food requirements and recommended allocations among claimants to the Secretary of Agriculture. He was chairman of several important departmental committees under WFA and in the USDA, and was deputy U. S. member of the Combined Food Board.

Singing birds

"YEARS AGO, when the English biological chemist, Gamgee, was visiting the old Harvard Medical School, he found us all crowded into small, dark, ill-adapted laboratory rooms," writes W. B. Cannon in his The Way of An Investigator. "After listening to our apologies and complaints he eased us by remarking, 'I have never noticed that the nature of the cage determined the singing of the bird.' "

"Small, dark, ill-adapted" accurately described most of the laboratory rooms I found occupied by research workers when I reported for work as a clerk in the Department back in 1906. The cages weren't much—but how those "birds" could sing! A reminder of that is Research Achievement Sheet No. 41, telling of the development of the self-boiled lime-sulfur spray, first successful fungicide for peach brown rot and scab. Bill Scott (the Achievement Sheet refers to him as William M. Scott) was working on that spray while I did typewriting and travel accounts in 1906. He made the official announcement of it at the Jamestown Meeting of the American Pomological Society in 1907.

Peach brown rot was particularly serious because its ill effect did not cease with the growers but was felt by transportation companies, handlers, dealers—and consumers. Peaches apparently in sound condition and carefully packed and handled frequently developed the rot somewhere along the line. No control measure had been found. Bordeaux mixture wouldn't do because even weak solutions injured peach foliage. Scott's emulsion—I mean spray—gave the first practical protection. "It saved the large central Georgia peach section as well as other important sections from ruin," says the Achievement Sheet. The value of the discovery is put at from $5,000,000 to $10,000,000 *a year,* depending on whether or not conditions favor the development of brown rot. Some singing!—JOHN A. FERRALL, PISAE.

Community food preservation

DON'T MAKE the mistake of thinking that the 1946 community food preservation program is just last year's program taken out of moth balls. This year, campaigners say, it is an all-out food preservation program designed to do something about the *world-wide* need for food. For this year the community food preservation and Victory Garden programs go hand in hand to help augment the world's total food supply.

Community food preservation is an efficient and time-tried system of increasing the winter food supply for families, school lunch programs, welfare institutions, and other organizations. The community food preservation center provides standard equipment and instruction in approved methods of canning or otherwise processing food.

Community groups such as Victory Garden committees, nutrition committees, parent-teacher associations, and civic organizations will continue to sponsor these programs. State Production and Marketing Administration offices, Extension Service, vocational divisions of the State departments of education, and Farm Security offices are effective sources of technical advice and leadership.

Supplies of canning equipment and sugar available for food preservation projects are as follows:

Tin cans—critical, but for preserving perishable foods they will be delivered. Orders for tin cans for community canneries or individuals canning foods that are not to be sold are given same preference rating as commercial processors. *Pressure canners* are available, but there is no guarantee that all orders will be filled promptly, because of shortage of critical materials. *Retorts and can sealers* are in fair supply. *Glass jars, closures, and rings* are expected to meet home canning needs. Rubber rings will be of better quality than in the last few years. *Sugar for canning*—supplies are still short and must be stretched. Follow wartime rule of 1 pound of sugar to every 4 quarts of finished fruit.

Publications on community food preservation available free from the Office of Information, USDA, are: MP 544, Community Canning Centers; MP 588, Instructions on Processing for Community Frozen-Food Locker Plants.

Navy honors FS lab

THE Navy's Bureau of Ordnance recognized the wartime plastics research of the Forest Service by presenting, on June 20, to the Forest Products Laboratory at Madison, Wis., and 16 staff members, certificates of distinguished and exceptional service to naval ordnance development. Capt. John E. Hurff, Commanding Officer of the Navy Reserve Officer Training Corps at the University of Wisconsin, who presented the certificates, also gave lapel emblems to 205 other employees who aided in the research.

The certificates were signed by Rear Admiral G. F. Hussey, Chief of the Bureau of Ordnance, who in a letter congratulated "every man and woman of Forest Products Laboratory for outstanding performance in connection with the research and development of pulp, paper, wood, and fiber products as well as adhesives, coatings, and plastics for naval ordnance uses."

Plastics research at the laboratory during the war was aimed in large part at producing substitutes for scarce cork, copper, and other materials. A wood-pulp shell plug was developed to replace cork plugs and a paper plastic cartridge case as a substitute for brass. Molding techniques were devised for shaping plastic materials to complex curvatures for use in various war items. A plastic spray-type coating was experimented with as a protective covering for guns and other naval ordnance when not in use.

A Forest Service press release dated June 21 gives details and the names of all workers cited.

Brief but important

The Social Significance of Scientific Research: This is the title of the lead article in Science Education (formerly General Science Quarterly), for April 1946 (Vol. 30, No. 3). The journal is the official organ of the National Association for Research in Science Teaching, the National Council on Elementary Science, and the Association of Science Teachers of the Middle States. It issues from the University of Illinois. The article is a condensation, prepared by the journal's editor, of an article entitled "Science and

Agricultural Policy," in the USDA Yearbook for 1940, Farmers in a Changing World. Readers of *USDA* may procure a mimeograph of this material by addressing T. Swann Harding, Office of Information, USDA, Washington 25, D. C. A limited number of reprints of the original article as it appeared in the Yearbook are also available.

Libraries: C. B. Larrabee, president and publisher of Printers' Ink, had a mighty good word to say for libraries in the June 14 issue of this magazine. Among other things he told businessmen not to slight inquiries from libraries, but to give good service. For, he said: "The average librarian is not a coupon-clipping Squirrel Nutkin who lays up treasures merely for the sake of laying them up. *He is a servant of his community* [italics ours]. He puts into his library only material that he feels will be used by the kind of people who will get help from that material." This sort of thing always moves the editor to repeat himself by saying that few of us in USDA fully realize the magnificent institution our own Library is, and we perhaps rarely stop adequately to appreciate the almost incredibly excellent service it constantly gives us. This service is so good that we just take it for granted. But it doesn't have to be that good. It is that good because our Library is an extraordinarily fine one.

Society and the State: If you travel about the country you are bound to be asked, by both USDA employees and outsiders: How far is State regulation going? Will a trend to less government start in a while after World War II is officially ended? An article of the above title in American Sociological Review for April offers a most interesting discussion of this question. It is by Kimball Young, of Queens College, and was his presidential address at the annual meeting of the American Sociological Society in Cleveland March 1. You will find not only agriculture but also the USDA mentioned more than once.

World food situation: A few reprints are available of an article discussing the world food situation, under the title "They That Did Feed Delicately Are Now Desolate," in Summer 1946 Antioch Review. Address the editor of *USDA*, Office of Information, Department of Agriculture, Washington 25, D. C.

Flood Control Act responsibilities: Secretary's Memorandum 1166, June 27, discusses the administration of the USDA program for waterflow and run-off retardation and erosion prevention on watersheds in the interest of flood control. Specifically, the responsibilities of the Office of the Secretary, Forest Service, and Soil Conservation Service, under the Flood Control Acts, are defined.

Farm commodity programs: On June 30 the Department issued a statement on various Production and Marketing Administration programs affected by the current price situation with respect to price control and related provisions. Grains, livestock and meats, dairy products, fats and oils, sugar, and fruits and vegetables are discussed. Ask Press Service for 1437–46.

McColly to China: Howard F. McColly, a Farm Security Administration water-facilities engineer in Denver and an officer of the Denver USDA Club, has been appointed to serve as research agricultural engineer with China's National Agricultural Research Bureau in the Ministry of Agriculture and Forestry. As such he is a member of a four-man Agricultural Engineering Committee to China, sustained by a grant from the International Harvester Co. He will headquarter at Peiping until Nanking is reconstructed. The undertaking, affiliated with two Chinese universities, is enormous.

Fortieth anniversity: Public tribute to the Food and Drugs Act of 1906 and its enduring benefits was unanimous at the fortieth anniversary commemorative meeting held in New York City all day June 25. Most felt they should not try to hold out for a fiftieth anniversary, as too many of the important figures would then be too old to care or would have passed on. From the message from President Truman down, the occasion was outstanding. We congratulate our former colleagues in the Food and Drug Administration, Federal Security Agency. If you want details, write to the Administration in Washington. The administrators of this law—Harvey W. Wiley, Carl L. Alsberg, Walter G. Campbell, and Paul B. Dunbar (the incumbent)—were all long-time USDA employees.

Seed expert retires: William A. Wheeler, chief, Seed Marketing Division, of Production and Marketing Administration's Grain Branch, retired June 30 after 30 years of service in USDA seed work. At one time Chief of the Hay, Feed, and Seed Division of Bureau of Markets, later of Bureau of Agricultural Economics, and later of Agricultural Marketing Service, he was responsible for development of Federal standards for hay, dry edible beans, soybeans, and broomcorn, and did research on standards for many other grain products. He organized the Interbureau Forage Committee, inaugurated the Seed Verification Service, was outstanding in development of the Federal Seed Act of 1939 and of the Uniform State Seed Law of 1940, and did valuable procurement work in World War II. Wheeler also, about 1920–22, conceived and developed the idea of using radio to disseminate market news, and represented the Department on departmental, national, and international radio committees and conferences. A graduate of Minnesota, he will continue collaboration with the Grain Branch.

J. Wise Byrnes: Our issue of *USDA* for January 7 announced Byrnes' retirement a short while earlier. We now regret to report that, on June 25, this man who had done so much to make America flower-conscious, died in Washington. He and his father before him were for years associated with the Department's chrysanthemum shows, which were attended by the elect, the notable, and the ordinary and run-of-mine citizen as well. From everywhere they came, some from distant States and lands, tourists, officials, members of garden clubs, Government employees. It required 85 truckloads to transfer the greenhouse work to Beltsville; there were 7,000 chrysanthemums alone. Byrnes followed the work to its new home. A world without flowers is a face without a smile. This wise saying of some ancient might well be his epitaph.

Field agency hours: Some field agencies have their hours of opening and closing business on their doors. That is all to the good. But in some instances these are wrong. Agency opening and closing hours have changed. That is bad. Disgruntled citizens come in to find the door closed and protest profanely. The *correct current* hours of opening and closing business should be stated on the doors, if any hours are there.

Delightful satire: The most delightful satire the editor has read recently is entitled "Animal Farm," by George Orwell, and the editor's copy came rather expensively from London. Wait, ask your bookseller—some American publisher will issue the book here soon and it will be less costly. For your information, the animals took over the Manor Farm of Mr. Jones, called it Animal Farm, and began to run it for themselves. The story then goes merrily on telling how dictatorship by the pigs, later by *a pig*, developed in their innocent democracy, and also how absolutism broke down. The denouement is too good to give away. Read for yourself and find out.

"Just Like a Factory": In her regular contribution called ". . . From England," Harper's for June, Rebecca West proves pretty clearly that farming is not carried on like factory work. Among other things (look it up on p. 523) she says: "Farming is constantly conditioned by elements in nature which are not yet controlled by man, to a degree that industry is not. Weather, sometimes, by its effect on raw materials, influences an industry, but it does not day by day affect its whole process as it does in farming. Nor do I know of a machine that sometimes produces an article worth seven dollars and sometimes one worth a hundred and fifty dollars; but that is what a cow does when she sometimes produces a bull calf or sometimes a heifer calf."

How research is done: The jovial director of our Western Regional Research Laboratory at Albany, Calif., T. L. Swenson, has an article in the June Scientific Monthly entitled "Research on Agricultural Products." He originally presented the material before the Utah State Chapter of Sigma Xi. Not the easiest reading in the world, for it is somewhat technical, it nevertheless invites study by those with a little training in protein chemistry, dielectric constants, and so on. Research on frozen and on dehydrated food at this laboratory is as fully grounded in pure science as anywhere in the world. Incidentally Swenson, who masters all this technical stuff, is as human, pleasant, and entertaining a companion as you'd find in a month of Sundays—not the slightest bit on the stuffy side.

Vernon Vine: This former Farm Credit Administration man, now with Farm Journal, had a fact-packed article in the New York Times Magazine of June 30, entitled "The Farm Revolution Picks Up Speed." The article dealt with the newer group of farm machines which promise both bumper crops and economic and social problems in plenty.

Richard F. Hammatt: Since 1941 director of the Nation-wide forest fire-prevention campaigns for Forest Service, Hammatt retired and Clinton L. Davis was appointed to take his place July 1. "Dick" began his career in the USDA in 1906 as an assistant in Umpqua National Forest, Oreg. He was with the California Redwood Association 1921–31, when he returned to FS in Missoula, Mont., and subsequently transferred to Washington as aide to Chief Forester Ferdinand A. Silcox. Born in Massachusetts, Hammatt studied at Massachusetts Institute of Technology and at Harvard. His successor has been with FS for a decade. A native Georgian, he attended the University of Georgia and worked as an editor and as a director of public relations before entering FS as information director for its southern region. Known as "Big Clint," he is an ardent sportsman.

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USDA

FOR AUGUST 19, 1946

National Food Situation

THIS document (issued periodically by Bureau of Agricultural Economics) for May–June contains some unusually interesting material. Aside from the general summary of the national food situation as seen at that time, and the customary commodity reviews, there are informative sections on food consumption in the U. S. during World Wars I and II, and on the food situation in continental Europe in 1945–46 as compared with prospects for 1946–47.

U. S. civilian food consumption per person averaged 10 to 15 percent higher in 1942–45 than in 1917–18. The average World War II civilian diet was also nutritively superior to that consumed during World War I. Daily supplies of calories and of protein averaged approximately the same, but the World War II fat content was up 11 percent over World War I, with carbohydrates 8 percent lower. However, the World War II calcium consumption had improved 27 percent, largely due to increased use of fluid milk, and supplies of the 5 principal vitamins were up between 14 and 30 percent.

Unusually adverse weather, coupled with war-caused dislocations of agriculture, cut 1945–46 farm food production in Europe to the lowest point in many years. Consumption fell to 80 percent of prewar. Although continental European food production is expected to increase in 1946–47 over 1945–46, any real improvement in consumption will depend upon maintenance of imports close to the 1945–46 level. The deficit of fats, meats, animal protein foods, and sugar will remain heavy. Imports of 800,000 short tons each of sugar, pure fat, and meat and fish combined, are required, as well as of some dairy products, and 10 million short tons of wheat, including other grains and dry legumes for food.

Liquid asset holdings

DON'T let the title get you down. The Bureau of Agricultural Economics recently had a hand in producing a most important document, entitled "National Survey of Liquid Asset Holdings, Spending, and Saving," embodying the results of a study conducted for the Federal Reserve Board. The document is readable, highly informative, and somewhat astonishing. Before starting in, you will do well to keep in mind that a "spending unit" comprises all persons in a household who depend on a common or pooled income for their major expenses.

Actually, it develops from this study, personal holdings in the form of savings bonds and bank deposits, which represent the bulk of wartime savings by individuals, are concentrated in a relatively small segment of the population. To get down to brass tacks, *10 percent of our U. S. spending units* (see above) *own 60 percent of those liquid assets or reserve spending power.* This 10 percent comprise those which individually own the largest amounts too.

On the other hand, *25 percent of our spending units own no bonds and have no bank deposits to their credit at all,* hence have no dammed up or reserve spending power to afford a buying spree. Another 25 percent own only 3 percent of the aggregate personal holdings in the form of bonds and bank deposits, which is another way of saying that *about half our spending units own but 3 percent of the reserved or withheld spending power.*

So the immediate future of pay-as-you-go spending by individuals depends upon how a relatively very small percentage of our population elect to use its holdings. *In 1945,* though concentration of income was somewhat less pronounced than before the war, *about 30 percent of our spending units saved nothing out of that year's income.* Hence most of the money saved in 1945 was put aside by a small proportion of our people.

From what people say, it appears that several billions of liquid assets will be used for consumption and investment during 1946. But people in general still regard their liquid assets as earmarked for long-range future purposes and not available for current expenditure. Hence they intend to finance most planned expenditures, including those for durable goods and homes, out of current income or by borrowing. They expect to save less this year than last, even if their incomes hold up.

We shall draw no implications from this suggestive study, which has had rather wide publicity in financial circles and is a credit to all who had a hand in it. If interested, get it from BAE.

Silver anniversary

TWENTY-FIVE years ago this July the Southern Forest Experiment Station opened its doors in New Orleans. Only four men, technical foresters, reported for work, to study the forestry problems of the Deep South, so that they could provide the technical basis upon which management of the South's greatest renewable natural resource—the forests—could be developed. Research leading to practical application of forestry was badly needed.

Research in forestry is a long-term business, but even in the first years the benefits of their program became apparent. It was welcomed by industrial and civic groups already awake to the shortcomings in the practice of southern forestry. Demands upon research were heavy and Congress authorized additional work from time to time. On its twenty-fifth anniversary, the station, with headquarters in New Orleans, and 8 branches throughout the Deep South, has a staff of 70 technical foresters and an equal number of assistants and clerks engaged in forestry research.

The station has only had three directors: R. D. Forbes, for the first 7 years to August 1928; E. L. Demmon through August 1944; and Charles A. Connaughton, the current director. It has served the forest areas of most of the States of Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas, Texas, and Oklahoma.

One of its greatest contributions has been to show both the forest farmer and the commercial owner that forest management pays. In no field of southern forestry has the effect of long-time re-

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search been more pronounced than in the naval-stores region of the Southeast, where, largely because of the station's work, the naval-stores industry has revised many traditional poor practices. Studies have been made on reclaiming millions of idle acres of forest land and have resulted already in planting of more than 870,000 acres. All the forests of the lower South were surveyed over a 10-year period and the results have aided those planning new forest industries (particularly the pulp and paper industry, which has grown to great importance in the South).

One of the first jobs of the station was to study the action of fire in the woods and to determine its role in forest management. Its studies have shown that both timber production and grazing in the woods can be practicable, if properly organized. Study is in progress to discover economic uses for the inferior low-grade hardwood trees of the South, which keep good trees from growing on the land they occupy.

In recognition of the station's silver anniversary, the staff held a dinner in New Orleans July 1. It was a family affair, attended by 100 employees, the only outsiders being Mayor deLesseps Morrison and wife, and Julian McGowin, a lumberman from Chapman, Ala., who was the main speaker of the evening. It was a very enjoyable event, with good speeches and good company, and everyone had a grand evening.

Letter from Spokane

WRITING from Spokane, July 10, John A. Browning, president of the local USDA Club and a grain inspector in Production and Marketing Administration, observed:

> Harvest will soon be upon us. I understand they are starting the big combines in the wheat fields around Hay and Dayton; that is what we call the "lower country" and lies along the north side of Snake River. We have reports that a large crop of wheat will be harvested in our territory, especially in Palouse, Indian for Land of the Rolling Hills. Reports are that a good part of Palouse will make 50 bushels per acre.
>
> The dry field pea crop will start to be harvested around July 25 to August 1. We will get a heavy run of samples from August 15 until September 1—in other words, be snowed under until October. Over 90 percent of all dry pea inspections performed in the U. S. are made through the Spokane office and our suboffice at the University of Idaho in Moscow.
>
> It's been cool enough for a fire in the fireplace mornings and evenings, but we turned the furnace off about June 25.

They probably did that just for looks, though. What Browning needs is a couple of nice molten summers in Washington, D .C.!

Books on science

IN THE New York Times Book Review of July 14, Waldemar Kaempffert, regular "subscriber" to *USDA*, and distinguished science writer and editor for the Times, discussed a number of books under the general title "On the Scientist's Bookshelf." Since his recommendations carry weight and since so many USDA employees are interested in scientific subjects, we shall list some of his recommendations. Remember these books are all published by commercial and university presses and are available only through your book seller or the Library.

On the atom bomb Kaempffert recommends:

> Prof. H. DeW. Smyth's monograph, A General Account of the Development of the Methods of Using Atomic Energy for Military Purposes Under the Auspices of the U. S. Government; Our Atomic Bomb, by a group of Los Alamos scientists; One World or None, by fifteen eminent physicists; Lilienthal's Report on the International Control of Atomic Energy; and The Absolute Weapon, by a group of Yale worthies, edited by Bernard Brodie. More popular is Prof. George Gamow's Atomic Energy in Cosmic and Human Life. Kaempffert also especially recommends books by Profs. Hugh Gray and Lillian Lieber, saying they are as well written as those a journalist could produce.

Among other books recommended are:

> The Einstein Theory of Relativity, by the Liebers; Doctors at War, a symposium edited by Dr. Morris Fishbein; an anthology, New Worlds of Medicine; Miracles from Microbes, by Samuel and Beryl Williams—subtitle is "The Road to Streptomycin," which was discovered by Dr. S. A. Waksman, of Rutgers and the New Jersey Agricultural Experiment Station; Men Against Pain, by Dr. Howard Riley Raper; Alexander A. Bogomolets' Prolongation of Life; Martin Gumpert's biography of Hahnemann; John Stuart Allen's Astronomy; James Stokely's Electrons in Action; Orrin Dunlap's Radar; and, if you want "science as sweet as a drug store sundae," J. D. Ratcliff's Science Yearbook of 1946.

Land Policy Review

THIS little quarterly from the Bureau of Agricultural Economics got out an unusually interesting Summer 1946 issue. Especially thought provoking is the lead article, Give It Back to the Indians, by Walter V. Woehlke, of the Office of Indian Affairs. He argues that in many instances the Indians put millions of acres of land to better use than did the white man after he took the acreage from them. For they grazed cattle on it, a use to which it was well adapted, while the whites plowed it up and produced soil erosion, dust storms, and other sequels of unwise cultivation.

Says the author: "Isn't it possible that, if the Great Plains Indians had been left in possession of their 1890 reservations and the plow had been largely kept out, the drought calamity and the dust storms would have been much less severe—and the weight of the smaller wheat surplus in the late 1920's would have exercised far less strain on the national economy? . . . Should we give part of this big chunk back to the Indians?" But read the whole article and see for yourself.

In the same issue Charles E. Kellogg, of Bureau of Plant Industry, Soils, and Agricultural Engineering, writes informatively and interestingly—for Dr. Kellogg is one scientist who writes as well as a journalist—about Russian contributions to soil science. Then the new Yearbook editor, Alfred Stefferud, contributes a quiet essay in traditional style on Hunting Old Books on Agriculture, that should not be missed. It would pay you to look up this fine little quarterly and read it from cover to cover, for that matter.

What's for dinner?

DURING the past 37 years dinner has changed so you'd hardly know it. And not only dinner, breakfast too. For instance, we eat 400 percent *more* citrus fruit now than we did in 1909 and 30 percent *less* of potatoes and grain products. What has happened to the famous potato and gravy man of years ago? Experts in the Bureau of Human Nutrition and Home Economics have been collaborating with those of Bureau of Agricultural Economics to find out.

The result is a stimulating and informative processed publication, dated June, entitled "Nutritive Value of the Per Capita Food Supply." It consists of a summary, text, tables, and graphs and represents a tremendous amount of work, but is only 35 pages long. The nutritive values considered are for foods as brought into the kitchen and regardless of what Mom does with them afterwards. No allowance is made for cooking losses or for edible food wasted. All figures are national averages, and no previous study has covered so long a period of dietary shifts and changes in the U. S.

Contrasting 1909 with 1945, there has been a steady increase in calcium, vitamins A and C, and riboflavin in our food supply. We consume very considerably more milk, fruits, and vegetables than we did formerly. Because of recent enrichment programs, our grain products now furnish a much greater share of the total available supply of iron, thiamine, and niacin than they did before World War II.

During the recent war years our diet contained more calcium, iron, B vitamins, and vitamins A and C than at any time during the 37 years under consideration. High consumption of milk, eggs, meat, poultry, vegetables and fruits, and enriched bread and flour products brought this about. Between 1935 and 1945 there were marked increases in the quantities of all nutrients available, except calories. This was because almost all protective foods were consumed in increased quantity. See the publication for details.

Laboratory manners

WHEN HE was engaged in laboratory research, as he was in USDA and outside for many years, one thing that impressed the editor of *USDA* was the faulty manners of many laboratory workers. That doesn't mean they were impolite to one another. But they were often careless, disorderly, slovenly, and lacked evidence of training in the basic principles of laboratory procedure, even when they came from good universities.

They would work with cigarette ash dripping into everything. They would leave reagent bottles unstoppered, use imperfectly cleaned apparatus, litter their tables with dirty porcelain and glassware, and often so contaminate their solutions they hardly knew what they were doing. Many of them wrote their notes so illegibly and smeared them so often with chemicals that it was indeed *re*–search, for they were always searching over again to find out what they already knew but had recorded illegibly!

This was by no means true of all laboratory workers. Many were ideal in their laboratory manners. Some were overmeticulous and ultrafastidious and, in seeking to avoid error or contamination, would sometimes step over to the point of error in another direction. The majority were cleanly, orderly, and kept easily read notebooks.

These remarks are incited by reading an article in May Scientific Monthly, by our old friend Dr. Frederick S. Hammett, of the Lankenau Hospital Research Institute. It is entitled "Integration in Science Teaching," and is one of the first discussions we have ever seen of the necessity for proficiency in laboratory technique, the importance of little things so often not inculcated by even very great universities. To our knowledge Hammett has been much bothered by laxity in various herds of graduate students who have trained under him year after year for many years.

In his discussion Hammett emphasizes the necessity for orderliness, neatness, cleanliness, avoidance of contamination, respect for and the use and care of apparatus, proper feeding and handling of experimental animals, a sense of inherent variables and an understanding of controls, accuracy in minor observations and measurements, avoidance of bias, knowledge of simple arithmetical procedures, and the conviction that one swallow does not make a summer. He then goes into some detail regarding these good habits and, in a very brief paper, makes more sound suggestions for young laboratory workers than you will usually find in a huge volume.

We have asked him for 15 or 20 reprints of the article and will supply you, insofar as possible, if you write T. Swann Harding, Office of Information, USDA, Washington 25, D. C.

W. A. Lloyd dies

WILLIAM ALLISON LLOYD, founder of Epsilon Sigma Phi, and from 1913 to 1940 a member of the Extension Service staff, retired as usual on the evening of July 10. He died in his sleep, age 75. Since his retirement in 1940, Mr. Lloyd had been Washington representative of the Association of Land-Grant Colleges.

"W. A.," a native of Morrow County, Ohio, where he was born September 9, 1870, was prominent in setting up the cooperative USDA Land-Grant College extension organization in the 33 Northern and Western States. He came to USDA in 1913 from the Ohio Agricultural Experiment Station, having previously engaged in livestock farming, experimental farming, and, prior to that, in the practice of law in both Texas and Ohio. As a farmer, he took a leading part in revitalizing the Grange movement in Ohio. Later, as one of USDA's extension administrators, he played a prominent part in organizing the infant farm bureaus, serving as the early farmer supporting organizations for carrying on local extension programs.

Mr. Lloyd was an outstanding advocate of progress in agriculture through education carried on under the leadership of local farmers and farm groups. He was chiefly responsible for bringing about the act of Congress under which the two stone arches, joining the USDA main building and South Building in Washington, were named after two prominent USDA leaders. It was his idea that one of these be named for Secretary "Tama Jim" Wilson, under whom the Department became a great scientific institution; the other for Seaman A. Knapp, who was the father of demonstration teaching, whereby farmers could learn to use science for better agriculture. Lloyd took an active part in formation of the Jefferson Agricultural Commission, and the naming of the Department's Jefferson Auditorium. As representative of the Land-Grant College Association, he also served as that organization's liaison with Congress in the legislation which resulted in passage of the Bankhead-Flannagan Act in 1945.

Brief but important

Continuing food need: According to Chester C. Davis, Chairman of the President's Famine Emergency Committee, any feeling that the world food crisis has been ended by our success in meeting our cereal export goal is wholly unwarranted. Critical times and problems lie ahead. You will find good summaries of the situation as of mid-July in press release 1503–46, and also in the speech made by D. A. FitzGerald, Secretary-General of the International Emergency Food Council, July 9—ask Press Service for 1488–46.

Pat hits another deck: Patrick W. Condon, former assistant to the Director of Information, and member of the Coast Guard from 1943 until the past February, is now on deck as Distribution Control Officer of Inf. He succeeds Stanley Gaines who has become assistant editor, Yearbook of Agriculture, working with editor Alfred D. Stefferud. Gaines came to Inf. from Office of Foreign Agricultural Relations, where he edited Agriculture in the Americas.

Negro farmers 35 years ahead of time: Farm Security Administration announced recently that four Negro farmers near Charleston, Miss., had paid their tenant-purchase loans 35 years ahead of deadline. Anybody who can pay debts off that precipitously makes the best sort of risk. Incidentally an Arkansas Negro farm family from Jefferson County was the 1946 Farm Family of the Year in the Negro Division in an FSA contest, and was honored at a program at A. M. & N. College. The president of the college presented Roy Collins and family with a large sterling silver platter awarded by the Pine Bluff Chamber of Commerce.

Trojan Horse: This is the title of a "fighting" speech made July 8, at Austin, Tex., by the aggressive Rural Electrification Administrator, former Secretary Claude R. Wickard. You might want to look it up (ask Press Service for 1400–46).

Director of the Office of Emergency Food Program: Paul Stark, Director of Production and Marketing Administration's Food Distribution Programs Branch, was so designated by Secretary's Memorandum 1156, Supplement 1, July 8. At the request of Chester Davis, Chairman of the Famine Emergency Committee, Mr. Stark was at the same time made available to the committee as Executive Director. He retains duties already assigned. It is hoped that the work of the Office of Emergency Food Program can be

completed before September 1. Food Distribution Programs Branch provides funds and staff for its operation; Office of Information conducts informational phases of the work.

News for Farmer Cooperatives: We are constantly surprised at the variety of things now made available through rural cooperatives. In the July issue of the above-named monthly, issued by Farm Credit Administration, you read about co-ops to supply milk in the land of cotton, group health in Minnesota, marketing facilities for apples in the Yakima Valley, better broilers on the Del-Mar-Va Peninsular, and so on. If interested, better keep an eye on this journal.

"Jo" takes over: M. Bernice Wheeler, who for about 3 years was in charge of the magazine contact work for the Office of Information, left the Department July 15. Her work is being continued by Josephine Hemphill of Inf. Radio script writing, broadcasting, and preparation of radio programs have been Miss Hemphill's main work with USDA, in connection with which she has traveled considerably in the field and maintained contact with various editorial offices. She is well known to magazine editors and writers through her contributions as a feature writer for a number of years.

Errors: To err is human. That's why they have erasers on lead pencils. But *USDA* dares not make one tiny little error per issue. In the July 8 issue we worked out a new spelling for Ithaca; anguished Cornell graduates (one) protested in droves. Unfortunately the lady who can spell Ithaca was on vacation at the time. In the May 27 issue we spelled the French word "cassation" wrong—because our French editor was ill. A retired employee who should have bad eyesight but who doesn't, and who knows his French, too, chided us immediately. We'll try to do better henceforth; we shall indeed. We also get called on ambiguous sentences now and then, after a platoon of information experts has read the copy. Business of hanging head in shame.

R. T. Miles: Mr. Miles who, since 1920, has been in charge of the general field headquarters of Federal Grain Supervision in Chicago, voluntarily retired June 30, to conserve his health. He entered the Department in 1916, the year the Grain Standards Act was passed, after having just spent 3 years as chief grain inspector of the Galveston Cotton Exchange and Board of Trade. Before coming to Chicago in 1919 he worked in Toledo and in Kansas City. Mr. Miles, a true career man in public service, did admirable work in the early days of the enforcement of the Grain Standards Act, and had a big part in building the high character and reputation of his organization. His successor is Hazen P. English, former chairman of the Board of Grain Supervisors in Chicago, and a Government career man of 29 years' standing.

World Food Prospects for 1946-47: Three of the four monthly reports summarizing current prospects, prepared by the Office of Foreign Agricultural Relations at the request of the President's Famine Emergency Committee, have already appeared. If interested in this series, address Duncan Wall at FAR.

Rural health and medical care: Rural Sociology for June 1946 contains an article by M. Taylor Matthews, Bureau of Agricultural Economics, on The Wheeler County, Texas, Rural Health Services Association; also one by Theo L. Vaughan and Herbert Pryor, likewise BAE staff members, on Prepayment Medical Care in Nevada County, Ark. These are really objective appraisals of programs sponsored and partly financed by the USDA, with Farm Security Administration most involved.

Letter: T. Roy Reid, Director of Personnel, recently received this rather typical letter from a retiree in Washington, D. C. "I appreciate beyond words the Department's thoughtfulness in remembering those who have left the service in suggesting they have their names placed on the retiree mailing list for the *USDA*. Even though I am enjoying my retirement to the fullest I shall always be interested in the doings of the Department where I spent so many contented years." We also are interested in you, retirees. If you are doing something especially interesting, work or hobby, let us hear from you. We should like occasional notations in *USDA* regarding retired personnel, if we can get them.

New Land Bank Commissioner of the Farm Credit Administration is J. R. Isleib, formerly Deputy Land Bank Commissioner. He fills the position left vacant by the death of W. E. Rhea. "Jim" Isleib was born in Texas, where he lived and engaged in business before coming to FCA in 1932. He assumes the top position in the Land Bank System after working up through several positions of responsibility.

Bad news: Fortunately this is bad news for beer drinkers only, and of course there are none in USDA. We met our wheat-export goals, but there is more famine ahead still to be relieved and the grain shortage remains with us. The Department has told the brewers that restrictions on the use of grains for the production of alcoholic beverages will continue as long as the grain shortage does. Beer production was 86.5 million barrels in 1945, as compared with 55 million in 1940–41, and current 1946 production is running at a rate of about 70 million barrels. Incidentally, while brewers' spent grains may equal or surpass dry grains in feeding value, only 30 percent of the original dry grain used is finally recovered as spent grain.

Down to the roots: Allyn Walters tells us about staff conferences being held at the end of Mr. Wickard's first year as Rural Electrification Administrator, which reach right down to the roots, to the people in lower grades who do the work. They, like the rest of REA employees, are thus acquainted with the reasons for and high spots of programs, policies, and plans. This is a great idea and one for other agencies to emulate.

Lt. Col. Clifford gets Legion of Merit: Lt. Col. Thomas T. Clifford, who was on military furlough from the Shipping and Storage Branch, Production and Marketing Administration, was recently presented the Legion of Merit for outstanding performance of duty while serving as deputy chief of organizational planning with Air Transport Command headquarters. Presentation of the award was made by Lt. Gen. Harold L. George, ATC Commanding General, to Colonel Clifford, who has been discharged from the AAF and has returned to the Department.

Distribution of USDA: *Mrs. Monica Crocker, Division of Training, Office of Personnel, who supervises the distribution of* USDA, *every now and then finds instances where individuals, groups of employees here or in the field, or on rare occasions even whole agencies fail to get the house organ, yet say nothing about this for long periods of time. Sometimes stencils are unavoidably lost or names drop mysteriously and unintentionally from mailing lists. If* USDA *does not reach you at fortnightly intervals, please get in touch with Mrs. Crocker at the first sign of its vanishing. She will immediately take steps to see that the oversight is rectified.*

Until Texas brags: Tut tut, this can go on forever. That item in our June 24 issue on Maryland and California vets being first to get Farm Security loans brings this rejoinder from Frank E. Stepp, of FSA, in Dallas: "Several lengths ahead of both Maryland and California, FSA approved a land-purchase loan for World War II applicant Carroll M. Olson, of Hamilton County, Tex., on July 2, 1945, and, on July 26, 1945, this loan was formally closed. . . . Furthermore, FSA's County Committee in Cass County certified the first straight 'GI Guarantee Loan' in the Nation in January 1945. . . . In pure fun, it might be said that all a Texan has to do is tell the truth and he immediately is accused of bragging."

Efficiency peaks: You, like everyone else, vary in your efficiency level during the day. At one time during the day you work better than at other times. Some of us do our best work in the morning; some in the afternoon, after we get warmed up; some even are night owls. Insofar as possible you should aim to attack your most difficult tasks when your own efficiency is at peak, leaving the more or less routine things to be attended at the time of day when your bodily work mechanism is running in low gear.

Isolation: Many field people feel strangely isolated from Washington. It is so far off. Washington officials so seldom visit them. They feel detached and as if working all on their own. It is almost pathetic to see how much some field people appreciate a sympathetic visitor from Washington who really wants to find out what is being done and report it. It would also seem that a bit more travel money could be well spent on visits by higher agency officials to remote field stations. Such fund investment would bring large returns in heightened morale and more efficient public service.

High-power virus: Department experimenters have found that 1/1,000,000th of a cubic centimeter of blood drawn from a hog infected with cholera was very frequently sufficient to infect another hog with cholera—and 1/2,500,000th of a cubic centimeter occasionally produced cholera. (A teaspoon holds 3.6 cubic centimeters.) Doses of 1/5,000,000th of a cubic centimeter was not infective. Cholera virus was most abundant in the blood of artificially infected hogs on the sixth to eighth days after infection.

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USDA

FOR SEPTEMBER 2, 1946

Graduate School

THE 1946–47 Graduate School program has been planned to continue previous excellent standards. GS officials are striving to meet current and future needs of USDA and other Federal employees.

A new series of special lectures is Progress in the Field of Antibiotics, discussing the latest developments in biological sciences. One lecturer is S. A. Waksman (see *USDA* July 8). Another new course is What We Learned in Public Administration During the War; lecturers include Bernard Gladieux, executive assistant to Secretary of Commerce, Roland Young, author of This is Congress, L. W. Hoelscher, Budget Bureau, and William Anderson, political-science professor, University of Minnesota, and others. Other courses in public administration are Administrative Law, and Management of Government Purchasing.

President Truman recently called a national conference on safety. Tying in with this is Accident Prevention in the Federal Service, under J. H. Wetzel, Soil Conservation Service. Personnel Director T. Roy Reid is in charge of Current Policy Problems in American Agriculture, given by U. S. agricultural leaders. Courses in technology (formerly engineering) place greater emphasis on applied mechanics, engineering administration, and textiles.

GS offers internships in sampling for those with advanced degrees in statistics and social sciences (get further information from GS). The laboratory facilities in surveying, fine arts and architecture, and photography have been expanded. Catalogues of Washington and correspondence courses are available from GS, 1031 South Building. Registration is September 9–14 and 16–21. Classes start the week of September 23.

Mission returns

AGRICULTURE provides a firm basis for international good will. This fact—hardly a new concept as far as the USDA is concerned—has been brought into greater clarity by the return of the U. S. Agricultural Mission to the Near East. The mission, sponsored by the Departments of State and Agriculture, is preparing a final report on agriculture in the Near East after spending 4½ months conferring with Government officials, agricultural leaders, and plain tillers of the soil in Egypt, Lebanon, Syria, and Iraq. It also cooperated with the Food and Agriculture Organization in a study of Greek agriculture.

The primary purpose of the mission, which visited the countries mentioned by invitation, was to survey, in cooperation with local officials, the possibilities for long-term developments relating to agriculture, which might be undertaken by the Governments of the Near East countries visited, either privately or in cooperation with the U. S.

Dr. Franklin S. Harris, president of Utah State Agricultural College, headed the group. Other members were Dr. Robert E. Buchanan, Director of Iowa State College, and Dr. Afif I. Tannous, rural sociologist and staff member of USDA's Office of Foreign Agricultural Relations.

The travels of the three agricultural workers from the United States took them over desert sands and into Bedouin tents, to the King of Arabia's palace, and into conferences with village folk and high Government officials. Everywhere they were warmly welcomed and received full cooperation in conducting their agricultural studies.

At Judda, near Mecca, the group shopped for igals, kufeyas, and ghutras (native headdresses), as important as a derby hat to a Gay Nineties blade. At Riyadh, Arabia, the King dismissed his interpreter when he found that FAR's Tannous was an Arab. That is true. He was born in Lebanon, and once served as Director of Village Welfare for the Palestine Department of Education in Jerusalem. From the tents of the Bedu tribe in Iraq to the halls of the Arabian King, the mission sought counsel and guidance from local officials, learned much, and will now disgorge this learning—QUINCY EWING, FAR.

Land army

A LAND ARMY of 11,044,000 persons was working on our farms on August 1. The total number working on that date was about ½ million larger than a year earlier.

A foreign labor force of 59,156—including nearly 40,000 Mexicans and substantial numbers of laborers from Jamaica, the Bahamas, British Honduras, Barbados, and Newfoundland—was working with various crops in this country. An additional 10,000, mostly Mexicans, will be brought in for the sugar-beet harvest. About 350 Canadians were working on farms in New York, New Hampshire, and Vermont.

The President has signed a resolution continuing the foreign-labor program from December 31, 1946, through June 30, 1947, with an appropriation of $12,000,000 for this period.

Arson in the woods

TOO MANY people still have the idea that it's a good plan to burn a forest. Incredible? Forest Service says we Americans burned over 5 million dollars worth of our timber resources in 1945, that total timber and property damage due to forest fires was over 26 million dollars, that at least 18 persons lost their lives while fighting forest fires, and, finally, *"the deliberate setting of forest fires was the largest single cause" of these losses during 1945.*

That's a terrible indictment of the American public. Timber is urgently needed for the veterans' housing program and many other uses. Yet 27 percent of the 1945 forest fires (there were 124,728 of them all told) did not catch but were set! Much of this incendiarism is not malicious—just mistaken notions about greening up the grass, getting rid of vermin, or such. But it does a lot of damage just the same. Next to incendiarists, smokers caused the most fires; then, in descending order of op-

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probrium, came debris burners, miscellaneous and unclassified, lightning, railroads, campers, and lumbering operations.

There was a slight decrease in the number of fires in 1945, as compared with 1944, but both the acreage burned and the total damage to timber and other property were slightly on the increase. The fires were just more efficient, destroying more per fire. It cannot be said with too great emphasis that, because timber is short and more people than ever before are seeking recreation in our forests this year, all forest visitors should exercise extreme care to prevent forest fires by every means at their command.

Top executive

THE FOLLOWING constitutes a very much abbreviated rendition of "Ten commandments for top executives," in Printers' Ink for July 5. They seem just as applicable to the operations of supervisors, not quite so top:

(1) Inspire by precept rather than by preaching. (2) Don't talk down or look down on your subordinates. (3) Keep out of office politics and keep politics out of your operations. (4) Build human relations from the inside out; i. e., be human yourself. (5) Correction by suggestion beats instruction by criticism. (6) Don't be a careless promiser. (7) Don't be carried away by third-party criticisms; there are two sides to every story. (8) Don't try to be too hard-boiled. (9) Persuade your subordinates to help rather than order them to perform. (10) Be specific in your assignments and keep mystery out of your requests.

The original, as written by Harry Simmons, is somewhat longer, but there you have the gist of it.

Richter, Vienna, 950 calories

DR. J. H. Richter, head of the northern and western Europe section, Regional Branch, Office of Foreign Agricultural Relations, has gone to Austria for a year, at the request of the Secretary of War. There, as public economy adviser to the United States element of the Allied Commission for Austria, he will seek to assist the Viennese. Their gaiety is now confined, because they are trying to get along on rations of less than 950 calories daily, and the discovery of a lonely cabbage or some dried meat on their once thriving markets is urgent to stave off hunger.

Richter joined USDA in Vienna in 1925 as assistant to the agricultural commissioner. He knew Vienna when Karntner Strasse resembled Fifth Avenue; it is now a mess of rubble. He remembers unshattered old St. Stephens Cathedral, its parks filled with green trees and playing fountains, instead of vegetable gardens. Later he served in various foreign posts as economist and assistant to various agricultural attachés, and, in 1940, came to Washington to FAR.

He made three official trips to Europe during the war. This time, as on his previous trip, he will work with Gen. Mark Clark. He is author of two books on general economics and mathematical statistics, Economic Theory of Public Investment, and Theory and Technique of Correlation Analysis; also of numerous articles.

Changed command at OES

DR. James T. Jardine retired as Chief of the Office of Experiment Stations at the end of July. A native of Idaho, educated at Utah State College and University of Chicago, Dr. Jardine became a special agent of Forest Service in 1907. From 1908 to 1910 he was forest supervisor; then he assumed charge of range investigations and became an authority on range utilization. His publications are still recognized classics in this field. From 1920 until 1931 he directed the Oregon Agricultural Experiment Station. Dr. Jardine has honorary degrees from his alma mater, from Kansas State, and from Clemson. He is a brother of former Secretary Jardine, and was for 6 years director of research for USDA.

His successor is his associate, R. W. Trullinger, a native of Iowa, and a graduate of its State college with a degree in agricultural engineering. He has been continuously employed in OES since March 1912, except for 2 years of military service in World War I. Since August 1938, he has been assistant chief of the Office. Dr. Trullinger holds the honorary degree of Doctor of Engineering from Rutgers.

Erwin C. Elting has succeeded Dr. Trullinger as OES Assistant Chief. Mr. Elting, who is a native of Missouri, came to OES in 1936, and recently has been experiment-station administrator in animal husbandry.

"Copy cats" increase

IT IS evident that the extermination campaign against "copy cats" (*USDA*, August 5, 1942) was not a complete success and a number of them escaped. They have been very active during the war and since VJ-day the genus copy cat has become quite prolific.

Copy cat? Why, the extra copies that you have in those files! Too often we forget that we have them, as they are quiet animals and have no vocal cords. Why not examine your office and see what can be done about exterminating them for good? Usually, there is no program for their disposition. Pretty soon, if we don't do something about it, these copy cats will be occupying a lot more of our valuable office space and filing equipment. Can you justify this expenditure? Under existing law we can kill these copy cats and no protest will be raised by the National Archives. So let's get busy and see how many of these nonprofit, non-fur-bearing animals we can dispose of. The result should be gratifying and millions of hides should soon be nailed to the side of the barn (waste basket).—JOHN S. LUCAS, P & O.

Rex Willard retires

REX WILLARD, regional agricultural analyst for the Bureau of Agricultural Economics in Portland, Oreg., retired June 30, after nearly 34 years of broad experience in the Department. His USDA career began in 1908 with a job mapping soils for the Bureau of Soils. After serving as soil physicist at the New Mexico Agricultural College, he joined the former Office of Farm Management, then went to Extension Service in 1918. From 1919 to 1931 he was employed jointly by the North Dakota extension service, North Dakota Experiment Station, and USDA Extension Service, doing extension work and investigations in agricultural economics. He was head of the Department of Farm Management at North Dakota Agricultural College during this time.

In 1931 Mr. Willard went to Washington State College as head of its Department of Agricultural Economics and Farm Management. From 1935 to 1937 he was principal agricultural economist in the Resettlement Administration and Farm Security Administration, transferring in the same capacity to BAE in 1937, then moving to Soil Conservation Service in 1938. Returning to BAE in 1939,

he served first as regional BAE representative for the western region and then as regional agricultural analyst.

Born in Friendship, N. Y., Mr. Willard earned his bachelor degree at North Dakota State College; later he did graduate work in agricultural economics at Harvard University. He is the author of several USDA and experiment station publications dealing with farm management problems, as well as a textbook on simple farm accounting. Improvement in land use, which he terms "one of the most important social problems of the day," has always been of foremost concern to Mr. Willard, and he has made his working life extremely useful to that cause.

Veteran's bureau

WE DO NOT mean quite what you think. But if a bureau chief may speak of "his" bureau, then Bureau of Dairy Industry is a veteran's bureau, and the veteran is far from ancient-appearing O. E. Reed, Chief. Mr. Reed came into the Department in September 1928. He is the only one now at the head of the same agency, except Thomas H. MacDonald, who was then chief of the Bureau of Public Roads, and who still heads Public Roads Administration, which, however, is now part of Federal Works Agency where his title is Commissioner.

W. M. Jardine was Secretary and R. W. Dunlap Assistant Secretary when Mr. Reed took over. Dr. A. F. Woods, long since retired but still daily active, *and we do mean active,* in the Graduate School, was Director of Scientific Work, while Walter G. Campbell, later head of the Food and Drug Administration (now in Federal Security Agency) and now in retirement, was Director of Regulatory Work. The Director of Extension was C. W. Warburton, retired; of Personnel and Business Administration, W. W. Stockberger, deceased; of Information, M. S. Eisenhower, now president of Kansas State, the presidency of which Mr. Jardine left to become Secretary. The Solicitor was R. W. Williams, and Claribel R. Barnett, now enjoying retirement, was Librarian.

Charles F. Marvin headed the Weather Bureau, which is now in the Department of Commerce; John R. Mohler, retired, headed Bureau of Animal Industry; William A. Taylor, retired, was chief of Bureau of Plant Industry; R. Y. Stuart, deceased, headed Forest Service; H. G. Knight, deceased, was chief of Bureau of Chemistry and Soils; C. L. Marlatt, retired, headed the Bureau of Entomology; Paul G. Redington headed the Bureau of Biological Survey, which is now in Fish and Wildlife Service, Department of Interior; Nils A. Olsen, deceased, was chief of Bureau of Agricultural Economics; and Louise Stanley, now assistant to the Research Administrator, headed the Bureau of Home Economics. C. L. Marlatt also headed Plant Quarantine and Control Administration; the late J. W. T. Duvel headed Grain Futures Administration. Mr. Campbell was both Director of Regulatory Work and chief of Food, Drug, and Insecticide Administration, as it was then called. E. W. Allen, deceased, was chief of the Office of Experiment Stations and C. B. Smith, retired but active, headed the Office of Cooperative Extension Work.

Don't let all this fool you into thinking Mr. Reed is one bit senile. He's still a vigorous young man.

But BDI got a new assistant chief July 19, in Dr. Ralph E. Hodgson, for the past 18 months in charge of its dairy-cattle nutrition research. He succeeds Ernest Kelly, who retired last January. Dr. Hodgson will plan and coordinate the Bureau's entire research program and supervise its extension activities, his former duties having been taken over by Dr. L. A. Moore, who was his assistant. Hodgson joined BDI in Puyallup in 1930, and his outstanding research on the nutrient values of roughages, and their preservation and utilization, won him the Borden Award in 1939. Born in Wisconsin, he was educated at the university of that State and at Kansas State.

Brief but important

Ag school gets physics project: Although more than a hundred million radio crystal units were made for military sets during the war, no two were ever identical. The Army wants to know why, so it has awarded a study of the fundamental properties of quartz radio crystals to Colorado A. and M., and approximately 5,000 dollars' worth of equipment is being shipped to the campus. Hitherto the Government has been taking research technicians from the college campuses; now it is farming out its research projects to the colleges. Advanced physics students will conduct many of the experiments, under the direction of Professor Virgil E. Bottom, in charge of the project. They will seek to develop crystals of identical characteristics.

Prof. Church: Writing in regard to the item about him in *USDA* of June 10, headed "In Reno," Meteorologist J. E. Church says he did not think of himself as courtly or precise, "though I confess to a much cluttered office which grows at one end faster than I can absorb at the other." All we can say is that if a pleasanter, more charming, and more distinguished elderly scientist exists in the field of agriculture in the U. S., we do not happen to know him.

Morris L. Cooke: The other day Dan Braum (Office of Personnel) remarked that he had rather have a half hour's conversation with Morris L. Cooke, first Rural Electrification Administrator, than an hour and a half with any other person he could think of. That sort of thing has been said of Mr. Cooke for many years. His writings lead one to think there is plenty of substance behind these spontaneous tributes too.

Better Wheat: Under this caption The (British) Lancet, for June 1, had a brief editorial note calling attention to the fact that English wheat was quite inferior to Manitoba (Canadian) wheat in protein, vitamin B_1, nicotinic acid, and iron content, the former actually containing 5 percent less protein than the latter, on the average. The note pleaded for a research program on wheat breeding designed "to produce new varieties of wheat suitable for our (English) soils and climate, which will combine the two factors of bread-making quality (now low in English wheat) and high nutrient content." There is wheat and wheat, and the average English kinds were said to contain only 8.89 percent of protein, less than 1 I. U. of vitamin B_1 and only 48 micrograms of nicotinic acid per gram, and but 3.05 milligrams per 100 grams of iron.

In Colorado: The mail wafts in arresting blue sheets indicating that Colorado A. and M. Experiment Station at Austin and the Potato Station at Greeley are hard at work on hormone sprays to retard spring growth of fruits, new cover-crop systems, use of DDT for orchard insect control, weed control, tests of root stocks and intermediate stocks for apples, pruning and variety trials with all sorts of fruits, tests of combinations of commercial fertilizer and of a new material for insect control said by the station to be 10 times more powerful than DDT, potato breeding for resistance to scab, fusarium, and psyllid insects, the use of tensiometers to measure moisture in the soil and thus time irrigations, and so on and on. The extent and importance of ag research in the States is astonishing, for the like of what goes on in Colorado will be found in every State of the Union.

Bananas—in Iceland? Some workers in Office of Foreign Agricultural Relations were badly frightened recently when an inquiry came in about growing bananas in Iceland. But they quickly regained their composure and discovered that bananas really do grow on that far northern and often bitterly cold island. But it's just an experiment, nothing commercial, no bananas for us to import. Three banana bulbs of a type received in England from China in 1825 were started off by an individual in an electrically heated Iceland hothouse, in 1939, and have yielded fruit. The Iceland Government is also carrying on experiments of this kind in hot-water-heated hothouses. Yields run from 100 to 300 bananas per plant. The fruit, not exceeding 6 inches in length, is full-flavored.

Watch Your Step—Avoid Farm Accidents: This is the title of MP 608 (a revision of MP 481) by the USDA Safety Council. Over 4,300 are killed annually in farm-work accidents in the U.S.; over 900,000 farm people are injured, and $150,000,000 is lost, disregarding many indirect losses not taken into account. An accident is always looking for a place to happen. What a bull can do to a farmer shouldn't happen, period. Read this publication and learn how *not* to monkey with machinery, bulls, cisterns, fires, ladders, railings, windows, roofs, poison ivy, electricity, motor vehicles, and so on.

Gee whiz department: So the mice are bothering you? Well, be thankful it isn't a capybara, the largest rodent there is, an inhabitant of South America who is 4 feet long, 2 feet high, and resembles a guinea pig under a microscope. There are twenty families of rodents and several thousand species widely distributed over the world. But even at that we're lucky. Fossil rodents as large as an ox are known to have existed once. Imagine setting a trap for that one.

Bureaucracy: Perez Simmons, with Bureau of Entomology and Plant Quarantine in Fresno, reminds us that Neil E. Stevens' (then in Bureau of Plant Industry) communication, Bureaucracy As a Way of Life, in Science for May 22, 1936 (Vol. 83, p. 497) is still good reading. It is. Hunt it up in the library. Stevens remarked that the Government worker lives in a glass house and therefore cannot throw stones. He quoted distinguished writers who recently had good to say

of bureaucracy. He discussed next the efficiency and then the morality of Government workers, bringing H. A. Wallace and his father to witness on the former. Finally, he voiced enjoyment of his 20 years as a bureaucrat, and praised the courtesy, generosity, industry, and honesty of his colleagues.

Mr. Wickard: Rural Electrification News for July contains a very human and very admirable article on How Electricity Works for the Wickards. It is well illustrated. Incidentally, it brings out the fact that farmer Wickard, graduate of Purdue Agricultural School, has now taken up the electricity business in REA, while his son-in-law, Jean Pickart, graduate of Purdue Electrical Engineering School, is becoming a full-time dirt farmer, replacing his father-in-law in operating the home acres.

Back copies of USDA *can be supplied:* If you for any reason want back copies of *USDA*, they can be supplied. Should copies be missing from your file of the house organ, or if you want to establish a file, simply write editors of *USDA*, Office of Information, Department of Agriculture, Washington 25, D. C., or, in Washington, phone Miss Arnold, Ext. 4875, who can also supply you with indexes to Volumes I to IV inclusive. If at any time you want a few extra copies of a particular issue, write or phone.

Geron E. Rathell, assistant to the Administrator of Production and Marketing Administration, died of a heart attack July 20, aged 51. At the time of his death he was working on a special assignment in the Sugar Branch. Coming to Washington in 1933, Rathell was placed in charge of the Commodity Credit Corporation's cotton loan program. He was made treasurer of CCC the following year and later vice president in charge of finances. He was appointed deputy director of the Office of Basic Commodities under WFA in May 1945. Although born in Illinois, Rathell was brought up in Waco, Tex. Educated in the Waco schools, he proceeded to carve an effective career in auditing and accounting. He acquired expertness on cotton marketing before entering Government service by association with cotton marketing concerns in North Carolina, Georgia, and Louisiana.

Charles L. Tebbe has become director of the Northern Rocky Mountain Forest and Range Experiment Station, Missoula, Mont. Since July 1943, he has been in charge of the Forest Service Division of State and Private Forestry, in Portland, Oreg. He succeeds Melvin I. Bradner, deceased. "Charley" Tebbe is a native of California who graduated from the university thereof at Berkeley, in 1929, taking his degree in forestry. After varied experience in logging he entered FS in 1934, and served in California until 1939, when he came to Washington on special assignments until his appointment to Portland.

Attendance records: Jerry Kluttz, of the Washington Post, was instrumental recently in ferreting out five Government employees who had remarkable attendance records. One had forfeited 568 days in 26½ years of service; another, 430 days in 38½ years. A third employee had taken no sick leave in 45 years of service, and a fourth none in 43 years. One employee, now retired, topped the last two by having taken no sick leave during 51 years 8 months of service. Each of the five got a $100 Victory Bond at a special luncheon. No USDA employees were among the winners. Did any of you get missed somehow?

Was Malthus Right? This is a discussion of the world food situation and means being used to better it, which appeared in the Medical Record for June. The editor of *USDA* has about half a dozen copies if a few who read this care to see the article.

"Propinquity": In connection with the *USDA* (July 22) item on this subject, L. B. Boston, managing director of the Hampden County (Mass.) Improvement League (Extension Service), writes that it is housed in a fine 2-story brick building which also accommodates all other agricultural organizations in the area, and in addition, contains an auditorium which seats 350. Here Utopia in this line appears to have been attained.

James M. Pickens, retired plant industry (earlier animal industry) editor, who now lives at 417 Dorset Avenue, Chevy Chase 15, Md., and gives courses on report writing for the Graduate School, tells us about an emergency crop loan supervisor who, when he has occasion to address a meeting about his work, follows this procedure, which might interest others: (1) Prepares outline of talk; (2) checks all material for accuracy; (3) writes a pencil copy of what he intends to say; (4) refines the draft and types it; (5) makes a card file for use, if necessary, while talking; (6) speaks extemporaneously, but has copies of his talk handy if the press presses him for any. Pickens endorses this method. Incidentally he looks young and lively and good for possibly 50 more years, given the care he takes of himself.

Farmers air-minded in Texas too: Farmers have taken to the air not only in North Dakota, but also in other States, Texas for instance. The secretary of the National Flying Farmer's Association recently met with a group of air-minded farmers from all over that State, at Texas A. & M. Sixty farmers and ranchers, 21 light airplanes were present. Clayton Beard, of Lyon County, organizer of that county's flying farmers, was unanimously chosen president of the Texas Flying Farmer's Association. Flying farmers got their start in Oklahoma in 1944. About 600 Texas farmers and ranchers right now employ planes to manage their acreage, and, with one ranch itself as big as Rhode Island, you can see the necessity for quick getting about. Kit Gibson, one member of Texas' new association, just got his pilot's license and then *celebrated his seventy-fifth birthday by buying a plane!*

Plant explorers: On page 4 of its issue for November 13, 1944, *USDA* carried an article about Department plant explorers. The first of these was said to be N. E. Hansen. On page 11 of Farm Journal for August 1946, Ray Anderson runs a picture of Hansen, an 1897 graduate of Iowa State, who later became head of the horticultural department at South Dakota State College. He is still there, engaged in plant breeding work, at the ripe age of 80. We owe to him crested wheatgrass, Cossack alfalfa, bromegrass, Proso millet, and many hardy varieties of apples, apricots, and plums. He antedated David Fairchild as a Department plant explorer. Incidentally look up his article on Fifty Years Work as Agricultural Explorer and Plant Breeder, in Transactions Iowa State Horticultural Society, 1944.

Hybrid corn: In 1946, 2 out of every 3 acres planted to corn is in hybrids, an astonishing development from the 1 acre per 1,000 in 1933 and 1 acre out of 2 in 1939. In the 1937-44 period the increase was at a rate of 7 million acres annually. The fact that the increase is only about 3.7 million acres this year over last means that many important corn-producing areas are approaching the 100-percent-hybrid point. The hybrids yield an average of 20 percent more too, hence less acreage can be used to produce a corn crop of the same size. In 1933 only one-tenth of 1 percent of the national corn acreage was in hybrids; the figure was 67.5 percent this year.

DDT dope: The lead article in June American Journal of Public Health is Present Position of DDT in the Control of Insects of Medical Importance, a specially prepared review by Fred C. Bishopp, Ph. D., Assistant Chief, Bureau of Entomology and Plant Quarantine. The same issue also contains an article by Harry G. Hanson on DDT in the General Health Program and an editorial entitled "Taking Stock of DDT."

Interesting reading: A report of unusually significant research in the field of rackets will be found in the Atlantic Monthly for July. The article, entitled "Science of Noise," is by S. Smith Stevens, professor of psychology at Harvard and director of the Psycho-Acoustic Laboratory. A still more suggestive volume for careful study by those at supervisory levels is Management and the Worker, from Harvard University Press (1941), by F. J. Roethlisberger and William J. Dickson, with assistance and collaboration of Harold A. Wright.

David Diggs, celebrated Administration Building elevator operator for so many years, came down recently to renew acquaintance with his many friends. He looks 10 years younger. It's the sea air in New York that does that. He's in a building at 70 Columbus Ave., in New York City now, lifting Department of Justice personnel up and down.

DDT and summer theater: You probably think that doesn't make much sense, but actress Tallulah Bankhead, writing her Comment on the Citronella Circuit for New York Times Magazine, July 21, wound up thus: "If the war liquidated the summer theater for the duration, by way of compensation it provided it with a stimulant that should increase its popularity tenfold. For it's my contention that DDT, in its various solutions and sprays, will prove the greatest boon to the embowered stages since the invention of the counterweight system. For while the actor may avoid poison ivy and other country violences if he remains indoors, he's never found a way to combat the savage mosquito and other vicious insect life. An actress isn't at her best when she has her mind on her welts rather than her words." An illustrative drawing depicts said actress shooting insecticide bravely over the head of her kneeling leading man, *and getting the mosquito.*

Penicillin and rutin: The Journal of the American Medical Association for June 29 contains an article by a Washington, D. C., doctor, Everett J. Gordon, M. D., describing a delayed serum sickness reaction to penicillin, pointing to an anaphylactic sensitization in susceptible individuals. In the same issue the Council on Pharmacy and Chemistry announces its stand on rutin, in the form of an authorized statement running two-thirds of a column. This statement particularly calls attention to the accuracy of certain USDA press releases regarding rutin, which have, however, been distorted by some writers.

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USDA

FOR SEPTEMBER 16, 1946

Food and agriculture

THE Food and Agriculture Organization met in conference in Copenhagen September 2. This is the second session of the organization, the first having been held at Quebec in October 1945. Matters under study are:

(1) Proposals for a long-term international food program aimed at preventing both shortages and surpluses; (2) a comprehensive world food survey based on information from 70 countries; (3) a draft agreement covering relations between FAO and United Nations; (4) the first annual report of the Director General, Sir John Boyd Orr; and (5) a development plan for forestry and forest products.

FAO's ultimate goals concern all of us, regardless of our status—farmers, businessmen, workers, housewives, and all people of good will. Secretary Anderson says: "The Food and Agriculture Organization is, I believe, one of the greatest hopes of mankind for peace and plenty in the future . . . It hopes to lift the curse which has kept two-thirds of the world's people perpetually underfed."

USDA people attending the conference are: N. E. Dodd, Under Secretary, U. S. member; L. A. Wheeler, Director, Office of Foreign Agricultural Relations, alternate member; Keith Himebaugh, Director of Information, special assistant; Duncan Wall, head of Foreign Information and Statistics, FAR, technical secretary; W. V. Lambert, Assistant Research Administrator, ARA; O. V. Wells, Chief, Bureau of Agricultural Economics, and Conrad Taeuber, Special Assistant to Chief; Lyle F. Watts, Chief, Forest Service; Hazel K. Stiebeling, Chief, Bureau of Human Nutrition and Home Economics; and Joseph A. Becker, head of International Commodities Branch, FAR.

A fact sheet dated August 15, and subsequent conference reports, may be had from the Distribution Control Office, Office of Information. Field people write in; Washington staff phone 3511.

New retirement laws

FIVE important retirement bills have recently become law. The first brings the heads of departments and established agencies under coverage of the act.

The second provides for recomputation of annuities of those retired before January 24, 1942, which increases the annuities of those whose average salary was $2,800 for 5 consecutive years or more. Notices have been sent to eligibles informing them what the increase was to be beginning September 1.

The third benefits disability annuitants, making those who recover and try unsuccessfully to find a job, eligible for an annuity just as if involuntarily separated by reduction in force. In addition, the years spent on disability will be added to the annuitant's age at the time of disability retirement. Thus, if he retired on disability at 50 after 15 years of service, and could not find work, his separation benefit would be 15 years' service computed at age 55, the 5 years he spent on disability adding only to his age attainment.

The fourth benefits employees involuntarily separated between July 1, 1945, and June 30, 1947, with at least 25 years' service at age 55 or older. The annuity is cut by only 2 percent for each full year under age 62. Hence the employee of 55 involuntarily separated after 25 years' service receives an annuity cut of only 14 percent.

The fifth of these acts provides that a person receiving an annuity under the Retirement Act may at the same time receive compensation from the Employees' Compensation Commission due to the death of any other employees for whom the annuitant is the beneficiary.

National farm policy: The tenth report of the House of Representatives Special Committee on Post-War Economic Policy and Planning should be read by all who can procure copies through the Library. Rep. William M. Colmer, of Mississippi, was chairman of this committee.

Farmers' Home Administration

THE Department's direct lending programs for small farmers will be brought together into one agency—the Farmers' Home Administration. President Truman signed a bill August 14, giving the Secretary the power to create the new agency within the Department and transferring to it the functions of the Farm Security Administration and Farm Credit Administration's Emergency Crop and Feed Loan Division. Ninety days—until November 12—are allowed for effecting the changes.

The FHA was established by an order of the Secretary August 14, and Dillard B. Lasseter, who has headed FSA since January, was appointed FHA Administrator by the President August 16. The White House also announced Mr. Lasseter would have associated with him S. Paul Lindsey, Jr., Director of the Emergency Crop and Feed Loan Division, and Robert W. Hudgens, Associate FSA Administrator.

The new legislation, passed by Congress after extensive hearings, provides for credit services for farmers who cannot get the loans they need at prevailing rates (but not more than 5 percent) and terms in their own communities from banks, cooperative lending agencies, or other responsible sources. Three kinds of credit are authorized:

(1) Production and subsistence loans up to $3,500, for buying livestock, seed, feed, fertilizer, farm equipment, supplies, and other farm needs, for refinancing indebtedness, and for family subsistence. This operating credit will be for periods up to 5 years at 5 percent interest.

(2) Loans to buy, repair, improve, or enlarge farms. The amount of a loan will be limited to the average value of efficient family-type farms in the county or locality. The farmers will have 40 years to pay, at 3½ percent interest.

(3) Insured mortgages. The Government will insure 40-year loans by private lenders for the same purposes as the long-term direct loans. The amount borrowed under this plan can be up to 90 percent of the reasonable value of the farm and necessary improvements. The lender will receive 2½ percent interest, the Government 1 percent.

Veterans of all foreign wars will have preference for the long-term loans and insured mortgages. Disabled veterans will be eligible, provided their farm income plus pension will be enough to pay expenses and retire the debt.

The Scientific Monthly, popular science magazine issued by the American Association for the Advancement of Science (Washington 5, D. C.) has changed its dress as of July, and makes a great deal better appearance than hitherto. USDA and State experiment-station scientists are frequent contributors. Anyone interested in the advances of research and in science generally should keep up with this monthly.

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Swan Island

IT'S GOING to be easier for U. S. livestock producers to import disease-free breeding stock when the Department's animal quarantine station on Swan Island, 150 miles off the coast of Honduras, begins operations in the next few months. Establishment of the station, authorized recently by Congress, will protect this country's livestock industry from animal diseases of foreign origin, while at the same time facilitating importation of types of livestock in demand for breeding purposes, such as zebu cattle and karakul sheep.

The station on Swan Island, a U. S. possession in the southwest Caribbean Sea, is designed to serve as an international "clearing house" through which livestock moving from one country may be examined for disease before continuing to another country. It will be operated by the Department, but its facilities will be available to other countries. Operation of the station will not, in itself, remove any USDA quarantine requirements, but it will make it easier for imported livestock to meet those requirements, while at the same time safeguarding U. S. livestock herds from foot-and-mouth and other animal diseases of foreign origin.—QUINCY EWING, FAR.

Summation

IT WOULD be advantageous in many ways if many USDA employees spent their final year or two before retirement not in administrative work or in research, but in writing up their accomplishments and the current status of information in their own fields. They could be in quasi-retirement on full salary, as is the case with many outside institutions, but always available for counsel and to help solve knotty problems.

The hitch probably is that too few people are or care to be writers, while fewer still could be concise in preparing such summations. Yet they would have to hit only the high spots and to be brief—say 20 or 30, 200 or 300 pages, rather than 2,000 or 3,000! But such summaries would be invaluable historically, in providing a picture of what was discovered and how things were done, as well as in formulating administrative procedures and research programs.

Many research workers, especially, die or retire with their notes in chaos, or incomprehensible to others. Yet each one of them could—by carefully writing up what he had accomplished, what he had tried to do and failed, and what interesting leads he had discovered but had been unable to follow up—give scientific research great aid. The development of scientific knowledge would progress faster and fewer experiments would have to be repeated.

Some people in Office of Personnel are giving thought to the creation of such periods of summation. The idea seems worthy.

War-service and temporary employees

EACH war-service or temporary employee who holds a civil-service position will eventually have to acquire civil-service status in order to keep his—or her—job. The Civil Service Commission is rapidly giving examinations for all classes of positions now held by such employees. If an examination is given, and war-service or temporary employees fail to take and pass it they will be separated very soon after eligibles are available as a result of the examination.

It is therefore extremely important that all such employees watch closely for announcements of civil-service examinations. They should apply for examinations given for their own positions, as well as for similar positions, since the Commission may certify eligibles for their positions from registers set up for similar jobs. Your personnel officer will be glad to advise you if you are uncertain as to which examination to take.

Examination announcements are posted in post offices and on bulletin boards of the Department's offices throughout the country. Newspapers carry notices of the examinations in both Washington and the field. The commission's regional offices may release announcements for examinations for the field only. The Office of Personnel issues frequent notices calling attention to pending and forthcoming examinations.

However, if it is *your* job that is at stake you should take full responsibility for keeping informed of the opportunities open for acquiring classified civil-service status by applying for examinations in your line of work or in related lines.

Russia's new five-year plan: Read, if you can procure it, the agricultural section of The Great Stalin Five-Year Plan, an Information Bulletin issued by the Embassy of the Union of Soviet Socialist Republics, Washington 8, D. C. The whole plan merits study, but the agricultural section has particular interest for USDA workers.

Should the Government support science?

THIS IS the title of a new Public Affairs Pamphlet, issued by the Public Affairs Committee, Inc., 30 Rockefeller Plaza, New York City 20. This 32-page documented publication is by the science writer and editor of the New York Times, Waldemar Kaempffert, and is priced at 10 cents. It well deserves study by all interested in the subject.

The pamphlet is largely based on Science, the Endless Frontier, Dr. Vannevar Bush's report to the President on a program for postwar scientific research, and on the Senate's hearings on S. 1297 and related bills. Included is discussion of the philosophic division between pure and applied science, of planned vs. unplanned research, of planned research in the USSR and planning and organizing for freedom, of research in the U. S., the social sciences included, of education for research, and of the proposal for a National Science Foundation.

In seeking to show that our Government has long aided science, the author mentions the foundation of the American Philosophical Society by Jefferson, Franklin, and others, the fact that the Constitution calls for the cultivation of science and invention, and the founding of the National Academy of Sciences in 1863 at the request of President Lincoln. Unfortunately the establishment in 1862—also while Lincoln was President—of the great scientific institution for which we work, the Department of Agriculture, is not mentioned as an outstanding example of Government-supported science getting a start.

Smithsonian centennial

ON August 10 the Smithsonian Institution rounded out its first century. It was August 10, 1846, that Pres. James K. Polk signed the Act of Congress establishing the institution, after a prolonged congressional debate lasting two decades. It was in 1839, it may be remembered, that Congress first granted the Patent Office the right to expend funds ($1,000) for agricultural purposes. This was when Henry L. Ellsworth, son of the third Chief Justice of the Supreme Court, was commissioner.

About 6 months after Ellsworth took office, he was rendered officially homeless by a fire which destroyed old Blodgett's Hotel on the top floor of which the Patent Office was ensconced. However,

a new Patent Office building, now occupied by the U. S. Civil Service Commission, was soon under way and Ellsworth was naturally anxious to move into it. In his annual report for 1841, dated January 1842, Commissioner Ellsworth complained rather tartly that he had so far been unable to occupy his new building, because much of it had been given over to the temporary use of those fostering the establishment of a new national institute provided by an English Mr. Smithson. That was the Smithsonian!

Ellsworth said he thought it well for his office thus to aid a worthy cause, but he did need his new building. However, he got into the structure within a year or so, looked around, and said it should serve the purpose for many years. But it was overcrowded within 4 years and wings began to be added.

Research and Marketing Service Act

THE Research and Marketing Service Act recently passed by Congress, and approved by the President August 14, provides for a broad program of national agricultural and marketing research and services. The act is built on the Bankhead-Jones Act of 1935, but is much more comprehensive in scope. Its purpose is to develop new uses for agricultural products, to expand present uses, and to improve marketing facilities and services. Congress has declared in the act that its intention is to "assure agriculture a position in research equal to that of industry."

The act provides for research on: New and improved methods of production, marketing, distribution, and processing; human nutrition and the nutritive value of agricultural commodities; and gains or losses in nutritive value that take place in production, distribution, processing, and preparation for use by the consumer. It authorizes research to develop new and extended uses and markets for agricultural commodities and byproducts—particularly for foods and fibers for which production exceeds demand. Its purpose also is to encourage the discovery and breeding of agricultural crops and animals, especially those which may be utilized in the chemical and manufacturing industries.

The act authorizes—no funds having yet been appropriated—the following appropriations:

Payments to States for research: 1947—$2,500,000; 1948—$5,000,000; 1949—$10,000,000; 1950—$15,000,000; 1951—$20,000,000.

To Department for utilization research: 1947—$3,000,000; 1948—$6,000,000; 1949—$9,000,000; 1950—$12,000,000; 1951—$15,000,000.

Cooperative research with State experiment stations and other agencies: 1947—$1 500,000; 1948—$3,000,000; 1949—$4,500,000; 1950—$6,000,000.

To Department for marketing research and service, with permission to work through States: 1947—$2,500,000; 1948—$5,000,000; 1949—$10,000,000; 1950—$15,000,000; 1951—$20,000,000.

The act provides unlimited authorization for additional funds for each project following the periods mentioned.

Existing research facilities of the Federal Government, State agricultural experiment stations, and the Federal and State Extension Services will be utilized to their full extent in conducting this vast research program. However, the Secretary is authorized to enter into contracts with qualified public or private organizations or individuals, if in his judgment the work to be performed could be carried out to better advantage by them than by the Department.

It's Thomsen again!

F. L. THOMSEN, head of the Marketing and Transportation Division, Bureau of Agricultural Economics, has an excellent article in the summer number of Harvard Business Review, entitled "How Good Is Marketing Research?" The material is published personally rather than officially and is especially well written and informative.

Thomsen analyzes the kinds of marketing research usually performed, and assays how well they are carried on. He then points out the urgent necessity for more and better research on the determination of price policies and on cutting the costs of distribution, particularly the latter. He makes a good deal of the importance manufacturers and businessmen attach to production research as compared with the unimportance of distribution research.

It is one thing to cut production costs, but it is another to put an article within the reach of the consumer at a reasonable price. To do that requires research in distribution, i. e., marketing and transportation. Mere production research is insufficient.

An especially interesting part of this article is the section entitled "Mania for Simplicity." He makes some telling observations on the evils of over-simplification in explanations of technical problems.

This leads one to wonder just how far our passion for simplicity and brevity really should go. There are people who hold that everything must be briefed, abstracted, digested, sugar-coated, and so expressed that pictograms and a few words of one syllable will tell the entire complex story. There are even digests of the digests now, but some stories that should be told, and written, and heard, and read, cannot be expressed in baby talk so that busy people—who have plenty of time for highly technical discussion of sports or hobbies—can absorb and understand painlessly. There is a limit to that sort of thing. There seems to be a point at which people should be *educated up* to understanding, and where the effort to simplify should taper off.

But that's neither here nor there as to Thomsen's article, which is thoughtful, stimulating, readable, and understandable. Read it for yourself.

Grafting tomatoes

HAVE YOU ever been annoyed by the fact that the sort of tomatoes you do not care for particularly thrive in your garden; whereas those you like most turn up their toes and die in spite of your tenderest care? Well, Department tomato specialists are doing something about this. At the Regional Vegetable Breeding Laboratory, Charleston, S. C., for example, Peter H. Heinze has shown that it is quite practicable to graft resistance into the sorts you like.

Many very desirable types of tomatoes are quite susceptible to wilt and so cannot be grown successfully on soils infested with the wilt organism. On the other hand, several varieties have shown decided resistance to wilt attacks—the Pan America, for instance. What you do is grow one of the resistant sorts—and graft it to the kind you find most palatable.

The grafting trick comes with practice. A smooth slanting cut about an inch in length is made between the cotyledons and the first leaf. You cut off the top of the stock plant and place the scion of the variety you wish in its place, wrapping it with some similar material that will expand with the stem, does not bind the plant, and need not be removed. Heinze used stock plants about three weeks old, but larger ones could be used.

Of course, tomato plants may be grafted on tobacco or even Jimson weeds; but don't try this unless you like a nicotine flavor or Jimson-weed tang in your salad!—JOHN A. FERRALL, PISAE.

Brief but important

Savings: Our authority for the following statement is Silo Simpkins, for 26 years alter ego of Tennessee's extension editor, A. J. Sims: "The hen is the only farm creature that lifts the mortgage by laying around, and her son never sets." Silo also remarked recently: "There is no ceiling on the price of farm accidents." The *USDA* editor wishes to say that it was with Mr. Sims that he discovered the mountains of Florida on a celebrated trip a few years ago, during which the former also found that all Florida's crystal clear interior lake waters ran down there directly from Tennessee.

FCA back: Governor Duggan, of Farm Credit Administration, announced final moving of the central office from Kansas City to Washington during the week of August 12. The following are in South Building: Governor's Office, Divisions of Production Credit, of Cooperative Research and Service, of Land Bank, of Intermediate Credit, of Cooperative Bank, and of Information and Extension, and Solicitor's Office. The remaining divisions are in the Arlington Hotel Building, 1025 Vermont Ave., NW.

Insect blood cells: Nature (London) for May 11 carried, on page 635, a very appreciative review of J. Franklin Yaeger's paper on The Blood Picture of the Southern Armyworm in Journal of Agricultural Research, Vol. 71, No. 1, 1945. Yaeger is a member of the staff of the Bureau of Entomology and Plant Quarantine. In case you are interested, the blood cells of this lowly worm fall into 10 classes, which Yaeger subdivides into no fewer than 32 different types. Existing systems of blood-cell classification were much too simple to help him in this study.

The Social Problems of an Industrial Civilization: This book by Elton Mayo, professor of industrial research at the Harvard Graduate School of Business Administration, should be of great interest to all administrators and supervisors. The Library has it. The gist of Mayo's theory, well founded on prolonged research investigation, is that human beings are never mere chaotic collections of lone-wolf individuals. They are always grouped socially. The proper approach of management to workers is to foster a cooperative but voluntary social group structure which increases output and satisfaction with the job amazingly.

Population statistics: We are often asked how many employees the Department has. According to Office of Personnel's Statistical Summary of Employment for June, USDA had 71,830 full-time employees within the continental limits of the U.S., in the fourth quarter of the fiscal year ended June 30. Of these, 11,809 were in the "Inside Washington Metropolitan Area." Obviously there are almost 6 employees in the field to 1 in Washington, hence the house organ *USDA* should be well weighted towards workers outside the Washington area. About 27,700 copies are now being printed of each issue of *USDA. Share copies whenever and wherever you can, routing them promptly so that they can be read without too much delay.*

Ahead of time: On August 2 former farm tenants, laborers, and sharecroppers buying farms with Farm Security loans were reported 59 percent ahead of schedule in their repayments. This program, established by the Bankhead-Jones Farm Tenant Act of 1937, now enters its tenth year. Since it began, $222,084,895 has been loaned to 38,922 low-income farm families, of whom 5,195 have paid off all their obligations. The remainder are the aforesaid 59 percent ahead of schedule in repayment. Only 16 percent are behind schedule, by an average of $259, somewhat less than one annual installment.

USDA's decontrol authority: Under the OPA extension act the USDA has certain decontrol authority. The Secretary submitted to OPA on September 1 a list of agricultural commodities in short supply. Some, but not all of these, are now under price control. All agricultural commodities not included on the list, and currently under control, must be decontrolled. Revisions of the list will be made monthly. New items appearing will be subject to recontrol, upon recommendation of the Secretary and consent of the Decontrol Board; items dropped, if currently under control, will be decontrolled. The Secretary will recommend removal of ceilings from all agricultural commodities not important to business or to living costs, and OPA must decontrol within 10 days of receipt of his recommendation. The Secretary must, within 15 days, decide on any petition for decontrol filed by an industry advisory committee; his denial may, however, be appealed to the Decontrol Board.

Departures: Connie B. Gay, recently in the Production and Marketing Administration, and before that in the Office of Information, is leaving the Department to become president of Farm Radio Productions, producer of a weekly radio review of agricultural Washington. J. D. Richardson, visual information specialist in Inf., has transferred to the Department of the Interior to become chief of the Reclamation Bureau's Division of Engineering Drafting and Graphic Services.

Art Spillers back: The new chief of Forest Service's Division of Private Forestry is Lt. Col. Arthur H. Spillers, a Tennessee native who graduated from the New York State School of Forestry in 1929, entering FS in June of that year as a junior forester at the Southern Forest Experiment Station, New Orleans. He later resigned to work for TVA and for the Southern Pine Association, then returned to FS, and, in 1941, was assigned to the Division of State Forestry in Washington. He entered the Army Engineer Corps in April 1942, helped organize an engineer intelligence service in China, and subsequently transferred to Japan, where he organized the forestry branch of the Natural Resources Section of General MacArthur's headquarters staff. He was recently awarded the Legion of Merit. He succeeds Howard Hopkins, who has transferred to the land acquisition branch.

Field representative in Pacific Northwest: George T. Hudson has been appointed field representative of the Office of the Secretary, with headquarters at Wenatchee, Wash., until such time as space becomes available in Portland, Oreg. He serves the Secretary's Office and also the agencies in meeting authorized responsibilities in multiple-purpose programs in this region, and is USDA member on the Columbia Basin Inter-Agency Committee and on the Bonneville Advisory Board. See Secretary's Memorandum 1170, August 1, for details.

Washington employees: USDA has a habit of asking Washington as well as field people to *write* rather than telephone in for mimeographed and other material it supplies to readers; that is because its forces are widely scattered. There is method behind what seems madness. Miss Glick, who has the stock of such materials as we offer, is in room 459-A, Ext. 5451; Assistant Editor Arnold is in room 531-A, Ext. 4875; the Editor is in room 423-E, Ext. 4842 So orders in writing—the most informal note possible will do, just so it barely identifies what you want—are more easily passed around among us than telephone conversations.

Speech worth reading: M. L. Wilson, Director of Extension Work, delivered a mighty human, readable, informative talk before the Northern and Southern Great Plains Council Conference, Estes Park, Colo., August 9. It was entitled "Correlation of the Agricultural Programs in the Great Plains." Summaries may be obtained from Extension Information, Extension Service. When Under Secretary, M. L. was the catalytic agent who succeeded in getting the councils established.

Rutin story: The story of rutin is well, if a trifle technically, told in May American Journal of Pharmacy, in an article by Elof F. Johnson, of the Department of Pharmacy, Philadelphia College of Pharmacy and Science. One illustration in the article shows the Eastern Regional Research Laboratory, where Dr. James F. Couch, whose portrait adorns the front cover of this issue of the journal, and his associates worked out methods of producing rutin and fundamental theories about its use.

Eggs: Eggs, as packaged by the hen, are practically free from bacteria, but organisms promptly begin to collect on their shells after they leave the "factory," warmth favors germ multiplication, and the eggs should be kept as cool as possible immediately after "delivery." Humidity also helps an egg if not a human being; covering with moist burlap comforts an egg and deters it from spoiling. It is the heat, *not* the humidity, that bothers an egg.

Hard-drinking crops: Crops differ considerably from one another in drinking habits. Small grains, corn, pasture grass, and such quench their thirst from moisture near the surface. Alfalfa sinks deep roots; potatoes are in between. Hence crops of the first type require frequent irrigation with light applications of water, whereas the deep-rooted hard drinkers require infrequent but copious irrigation. Alfalfa will often go down two or three feet to get a drink. Agricultural Research Administration says that farmers who learn to understand the drinking habits of their crops will use irrigation water more efficiently and get better yields as well.

Language in Action: We should like to say a kind word for this book, though it got somewhat obscured by the war, having been published about 1940. The subtitle is "A Guide to Accurate Thinking." It is also a fascinating guide to precise word usage and an exposition of how far apart our thoughts and our language can get unless we take care to say what we really mean. Its author is S. J. Hayakawa, an enthusiastic Canadian-born student of semantics; its publisher, Harcourt Brace Co.

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USDA

FOR SEPTEMBER 30, 1946

Grain

SAID Secretary Anderson, August 23: "We have always wanted to remove or ease restrictions on the use of grain just as soon as this could be done safely . . . The time has not yet come, however, when all restrictions can be removed. Use of our grain supplies must still be managed with care."

It was further announced that our 1946–47 grain export goal, or target, would be 400 million bushels of all grains in lieu of 250 million bushels of wheat and wheat flour; the quantity of corn and grain sorghums used monthly by wet and dry processors and feed manufacturers, and the grain used monthly by the last, was increased 5 percent as of September 1; the 80 percent extraction of wheat flour terminated the same date; limitations remained on the quantity of flour to be produced for domestic distribution, and on the use of wheat for other food and nonfood purposes; the use of milling-quality wheat by feed mixers was further restricted; for the 3-month period beginning September 1, brewers were permitted to use grain and grain products, except wheat, up to 85, in lieu of 70, percent of the base period, but the use of wheat and wheat products remained restricted, and further limitations were placed on the use of rice; producers of distilled spirits were permitted to use grain, other than wheat or wheat products, at a 3-million-bushel level during September, in lieu of 2½ million bushels hitherto.

Details will be found in press release 1869; write Press Service or call 6114.

Veterans use co-op credit: The Nation's cooperative credit associations are proving popular with the veteran who is turning to farming. Veteran membership in these co-ops throughout the Nation is increasing at an accelerated rate. More than 4,800 veterans financed their 1946 farm operations with $10,262,069 in credit obtained from production credit associations in the first half of this year. Long-term farm mortgage credit through national farm loan associations went to 1,216 veterans and totalled $5,171,-235 in the 6 months.

Here chick!

THE Maryland State Poultry Council met at the University of Maryland August 28; it was followed by a breed-improvement school August 29 to 30. Dr. M. A. Jull, formerly of the USDA, opened the council meeting. He was followed by his successor, Dr. T. C. Byerly, our senior poultry husbandryman at the Beltsville Agricultural Research Center. The USDA was also represented later on by W. D. Termohlen, director of the Production and Marketing Administration's Poultry Branch, and S. J. Marsden, another of our poultry husbandmen.

Listening to Drs. Jull and Byerly, we learned that Maryland has a big broiler business, over 15 million fowl being dressed and sold annually. Financially, poultry is the State's leading agricultural industry, with dairying next, then truck crops, followed by corn, tobacco, and meat animals. Dr. Jull figures those dressed chickens leave behind them over 13 million pounds of valuable and usable byproducts—blood, feathers, and offal—which should be conserved and utilized to render the industry more efficient.

Feed, normally accounting for half the cost of poultry raising and now for 65 percent, must be watched closely too. Big-breasted fowl are being bred which use feed efficiently and economically to make flesh, but chickens never have been bred consistently for meat as they have for egg production. Strains are on the way, long-shanked fellows which produce more pounds of weight gain per pound of feed. They will be white strains too, for modern processors selling frozen broilers under cellophane fight shy of dark pinfeathers and hairs.

Mash utilization by chicks depends on the quality of the proteins it contains and the amino acid blends of those proteins. Methods of processing and preparing the mash are important and are being studied. It is known that protein can depress growth, if it is of low quality. The amino acid tryptophane, nicotinic acid, and vitamins B_{10} and B_{11} are all important as affecting growth and/or feather pigmentation. Experiments are being made with hormones also. Finally, efforts are being made to improve the fertility and hatchability of broad-breasted bronze turkey eggs. Maryland supports good research on all aspects of its principal agricultural industry.

Are you financially fit?

THE Director of Personnel has pointed out to us the many advantages to employees through systematic savings by purchasing bonds through the pay roll savings plan. Many employees have accumulated a fund, through this plan, which represents the margin of safety between "hand-to-mouth living" and financial independence.

These employees are well equipped for the day when their daughter or son goes to college, for the emergency operation they never thought would be necessary, for the purchase of a new car (when you can get it), for the family vacation (without borrowing), and for many other things which each of us could list and which, if we had them, would make our lives much happier. Why? Because we can plan for something we badly want and can now afford.

The point is, are *you* participating? Are you saving as much as you conscientiously feel you should? Do you have a systematic plan? Are you buying bonds? Now is the time to do something about it.

Remember "Capt." Cooke?

OLD-TIMERS will remember Richard H. Cooke, who was so long a top officer of the USDA watch, and his neat blue uniform with old-fashioned, gold shoulder bars. Our indefatigable correspondent, John A. Ferrall, suggested that his service record might equal that of Francis J. P. Cleary (54 years), recently retired from Office of Information. Equal it, did we say? Search of Cooke's record by the Office of Personnel shows that "Captain" Cooke was appointed February 1, 1864, in the old Division of Seeds, and served continuously until his death on November 25, 1925—*a period of 61 years!* The title "Captain" appears to have been wished on him by an admirer of Gilbert's The Yarn of the Nancy Bell, "Oh, I am a cook and a captain bold . . ."

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Cooke had a distinguished war record, having served with 5 brothers in the Union Army during the Civil War. He was seriously injured at the Battle of Chancellorsville in early May 1863. Upon his release from the service, President Lincoln personally assigned him to the new Bureau of Agriculture. His daughter still has the "appointment," signed by Lincoln. Cooke's formal appointment is signed by Isaac Newton, first Commissioner of Agriculture. His service was continuous from that time until his death at the age of 87. His grandson, James E. Gateley, procurement officer, Division of Fruit and Vegetable Crops and Diseases, Plant Industry, Soils, and Agricultural Engineering, tells us that sometime before his death the "Captain" told him he had taken but 28 days' leave during his service. He was a familiar figure around the Department, riding his bicycle to and from work each day.

"Captain" Cooke was quite a baseball fan, too. He took personal charge of conveying players' equipment to and from the ball field on the days the USDA team played in the old departmental league. This meant that he did not get home until after 8 p. m. on those days, but he never seemed to be bothered by a little thing like that—even when he was past 80!

"Mother Earth"

UNDER this heading The Lancet (a London medical journal) had interesting things to say about composts and humus and artificial fertilizer, in its June 15 issue. It noted the recent campaign against the use of artificial "manures," carried on both here and abroad. But, The Lancet remarked, "The earth's crust, after all, consists primarily of rock, containing the same chemicals as those in artificial manures, and from these simple chemicals plants synthesize the more complex organic molecules essential to the life of animals."

The physical properties of a soil are largely determined, it is true, by its content of humus or organic matter, and composts, made from animal excreta and vegetable residues, have their place in the scheme of fertilization. However, they are no more "natural" than are nitrogen, rock phosphate, and lime, which also occur in nature. In similar manner many of us get in the habit of speaking of "natural" foods, forgetful that, for instance, the wheat and potato plants, as we know them, are a far cry from what they were originally, because of breeding and cultivation. The Lancet says:

> Nitrogen fixed by the nitrifying bacteria of leguminous plants is apparently regarded (by some) as beneficial, but not nitrogen supplied as nitrates; it is as if a physician with no milk or vegetables for children under his care refused to give them ascorbic acid, synthetic vitamin D, and calcium salts. The case for artificial manures is forcibly, though no doubt inadvertently, presented in the remark that a cow giving 600 gallons of milk secretes in a year the equivalent of just over a hundredweight of chemical fertilizer in her milk. Normally this milk goes off the farm, and no amount of compost made from materials on the farm can replace these chemicals.

Again, the argument is made that mankind is more disease ridden since artificial fertilizers began to be used. But the medical journal finds no evidence of that. Such figures as we have indicate that many diseases were formerly far more prevalent than now. Certainly no primitive communities are known which avoid infectious diseases by consuming only "natural" diets. Moreover yields of farm crops have increased enormously since artificial fertilizers began to be used.

> For a hundred years experiments have been carried out at Rothamsted in which various plots of land, growing wheat, have been treated with artificial manures on the one hand, and farmyard manure on the other. Reviewing these experiments together with other evidence, Sir John Russell said that no organic manure had yet been found in which the nitrogen had a higher value than in nitrate of soda. While freely admitting the value of humus for improving the physical condition of the soil, he could find no evidence that organic manures have any *special* virtue either in increasing soil fertility or in improving the health or feeding value of crops.

World travelers

FILMS produced by the Motion Picture Service of the Office of Information are going to most of the world. The service reports an unusual postwar demand for USDA films. In June and July this year, for example, 39 requests came in from 17 foreign countries to either borrow or purchase our films. Seven requests came from Turkey, 5 from India, and others from Dutch Guiana, the Netherlands, Belgian Congo, Brazil, China, Liberia, Sweden, England, Australia, Ireland, and Ceylon, as well as nearby countries.

Motion Picture Service says the majority of requests for films comes from government and educational institutions, and some from churches and commercial concerns. USDA has produced a few sound films in Spanish. Most of them, of course, are in English, and the foreign countries run them with accompanying lectures in their own languages.

Another first

LYNX-EYED women in the Bureau of Human Nutrition and Home Economics read our story on the School Lunch Act in *USDA* for July 22, and, finding no mention of the beginning of school lunches in this country, sent us this historical note:

> Of course it is always dangerous to claim a "first." But certainly one of the first city school systems to serve lunches from a central kitchen was Boston, Mass., in 1894. Leader of this pioneer enterprise was Mrs. Ellen H. Richards, who later founded the home-economics movement and was the first woman student and faculty member of Massachusetts Institute of Technology. Until Mrs. Richards and her committee of public-spirited women took over, serving of lunches had been one of the perquisites of the school janitor, who doubtless turned a pretty penny. Shops in the neighborhood also resented loss of patrons and posted such signs as "Here you can get what you want to eat and not what the school committee says you must." The New England kitchen out of which went these first school lunches is still a going concern.

Preparedness

YOU'VE HEARD a lot about the importance of preparedness. Here's how it works—for you. James H. Beattie came to the Department in 1904 from Zanesville, Ohio. He had a B. S. from Ohio State. By way of preparedness he added an M. S. at American University, and needs only a final thesis for a Ph. D.

He displayed the same thoroughness in his official work and headed the vegetable project of the Bureau of Plant Industry from 1918 to 1929. Then an emergency arose—and found him prepared. The U. S. Horticultural Station, being started at Beltsville, Md., needed a superintendent. Since "J. H.'s" horticultural work at Ohio State had a strong tinge of engineering, he was given the job, especially as it was discovered that he had for years been specializing in greenhouse construction and heating. That was in 1934. As 1944 found him still on the job at what was by then the Plant Industry Station, he had about given up hope for a return to scientific research. This was distressing because he had started a number of projects in which he was deeply interested; particularly one concerned with peanut improvement.

What little hope he had was killed by the necessity, in 1940, of moving the Arlington (Va.) Experiment Farm to the Beltsville location. He had supervised PWA and WPA expenditures totaling around a million dollars in the early days, but this was mere "chicken feed" com-

pared with the financial responsibility now thrust on him. The total ran to around 2¾ million dollars before the job was completed to his satisfaction—and he had a finger in most of the work. He not only arranged for the surveying and purchasing of the 700 additional acres needed, but made many of the rough plans and specifications.

World War II came. The lowly peanut moved into the spotlight as an important source of vegetable oil. The Department's program called for an experienced leader in peanut growing and improvement. Who knew more about the work than J. H.? Nobody! So, to his amazed delight, he's back on the job he loves.—JOHN A. FERRALL, PISAE.

Are you accident prone?

DID YOU know that there were accident-prone and even sickness-prone types of people? Doctors say that the tendency to be injured in accidents is associated with the individual's personality. Studies in fracture wards of large hospitals show that a high percentage of the patients have long records of recurrent accidents and fractures. These are more conditioned by the individual's personality than by the risks assumed.

The accident habit usually accompanies a basic sort of conflict in which trouble with authority is common. If the persons involved cannot run away from authority or conflict by getting their difficulties adjusted or procuring other jobs, they often effect escape from the unpleasant situation by becoming accident-prone. Think it over.

Again, the physicians say that high blood pressure, coronary insufficiency, gastric ulcer, asthma, and hay fever are all associated with personality types and psychiatric conditions. Sufferers from coronary disease often have basic conflicts with authority which they resolve by long years of patient, conscientious work, done while boiling within. Thus they finally come out on top, subject to no higher authority, then get an attack and keel over.

Emotional factors also have much to do with an individual's resistance to infection by germs or viruses. Combined psychic and physical (psychosomatic) conditions accounted for about 80 percent of all ailments in the armed forces. Sometimes medicine and surgery are advisable, but more often intensive psychotherapy or mere changes in social and economic environment effect the cure. Altering the social situation often works wonders, even when that social situation is in an office.

Watch out. Don't let your emotions get you down. Consult a physician with a sound knowledge of psychiatry, preferably perhaps an internist who takes a lively interest in emotional and psychic conditions.

Eighth month

UNDER the above title the highly urban New York Times celebrated August during that month in an editorial remarking its similarity to February, as a time when nature's forces rest a bit to gather strength for oncoming and more rigorous seasons. Then "earth's pulsating rhythms gradually diminish to faint surges."

The shorn hay lies brown beneath a brassy sun. "During the sultry stickiness of dog days one can almost hear the corn grow." Goldenrod, wild asters, and scraggly staghorn sumac appear. The final two paragraphs of the editorial bear sharing entire:

> Dawns are strangely quiet as the first fingers of light pull in night's canvas. A few birds chirp in half-hearted fashion, but missing are the buoyant arias of a few weeks ago. Day comes on quietly and the desultory hours seem longer than 60 minutes. There's work to be done on the farm, but the rush of summer is over and men move more slowly as they wait for the time of harvest.
>
> Days are growing noticeably shorter, though dusk still creeps slowly down the mountains. At eventide the crickets tune up their wing strings and the chimney swifts put on their aerial circus. A night hawk zooms across the garden where the fireflies are circling about with their lanterns. It is nature's quiet time, getting ready for the activity that comes a little later when autumn's beauty bursts on the landscape.

Reply to Hoard's

SOME readers have written in to ask whether anyone in the Department had commented on the highly critical article in July 25 Hoard's Dairyman on Bureau of Dairy Industry's epochal experiment in the crossbreeding of dairy cattle. The answer is: Yes. M. H. Fohrman, of BDI, commented, in a three-page, single-spaced mimeographed document.

Hoard's charged that the experiments were defective, that BDI made misleading statements regarding the foundation cows, and that it thus created "unwarranted preliminary enthusiasm." Fohrman, before giving his comments, suggests that all interested read the official report of the experiments, entitled "A Crossbreeding Experiment with Dairy Cattle," which may be procured by writing BDI in Washington for BDIM-Inf-30.

We shall not attempt here to abstract Fohrman's comments, as they are somewhat technical, but we have a few copies to distribute to those interested. Washington employees phone Miss Glick, 5451, or Miss Arnold, 4875; field employees write Editor of *USDA*. Those who wish to follow the argument still further will find it continued in Hoard's for September 10, in an article entitled "Crossbreeding—Blood from Turnips?" by V. A. Rice of Massachusetts State College. But also see Is the Crossbred Dairy Cow on Her Way? by O. E. Reed, BDI Chief, in June Country Gentleman.

Document No. 2 revised

USDA Document No. 2, Constituent Agencies of the U. S. Department of Agriculture, has been revised. This means that each research, program, and staff agency has reread and corrected its section of the document, while the general over-all account has been brought up to date as of the beginning of September.

The document (of 71 pages) comprises a concise over-all account of the Department's growth in functions and responsibilities, in response to various laws, executive orders, and secretarial memoranda; details of the structure and functions of each agency, their legal and other justifications being cited specifically; and background material on agencies transferred from the Department, or which were abolished and their personnel, property, and functions placed elsewhere in USDA.

Material in the document from Farm Credit Administration, Farm Security Administration (which will soon change its name to Farmers' Home Administration), and Production and Marketing Administration, takes cognizance of the passage and provisions of Public Law 731, the Cooley Farm Credit Act and Public Law 733, the Research and Marketing Service Act, which latter is intended to give agriculture parity with industry in research—insofar as the provisions of these laws, signed August 14, have been carried out by the beginning of September. Efforts will be made to bring the accounts of the affected agencies still further up to date in reruns of this document.

To procure: Washington employees phone Miss Glick, Ext. 5451, or Miss Arnold, Ext. 4875, and ask for No. 2; field employees address their requests for the same to T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C.

Brief but important

New president of AVMA: The new president of the American Veterinary Medical Association is Dr. Bennett T. Simms, Chief, Bureau of Animal Industry, who was installed August 22, after election at the eighty-third annual meeting (1944) of the association. Also, Dr. William E. Cotton, former BAI dairy-cattle disease expert, who retired in 1937 and is now professor of veterinary science at Alabama Polytechnic Institute, was, on August 19, awarded the Borden medal in the field of veterinary science for 1946. Dr. Cotton's work has been outstanding on brucellosis, tuberculosis, tick fever, vesicular stomatitis, and foot-and-mouth disease.

In Forest Service: Edward P. Cliff, since March 1944 assistant chief of the FS Division of Range Management, with headquarters at Washington, has been appointed assistant regional forester in charge of wildlife and range management at Ogden. Clarence E. Favre, who has held this position since 1936, has been named to succeed Fred H. Kennedy as supervisor of the Toiyabe National Forest, with headquarters at Reno. Kennedy, meanwhile, becomes assistant chief of the Division of Wildlife and Range Management for Washington and Oregon, with headquarters at Portland, Oreg. Cliff is a graduate of Utah State, who has been in FS since August 1931; Favre, a graduate of the University of Idaho, began work as a forest guard in 1910; Kennedy, who succeeds Charles M. Rector, recently named supervisor of the Modoc National Forest, Alturas, Calif., is also a graduate of Idaho who entered FS in July 1929.

European wheat harvest: Mid-August indications were that the 1946 European wheat harvest would considerably exceed last year's crop, but would still be substantially below average. Good wheat crops have resulted in the Mediterranean area from both increased seedings and more favorable weather than in 1945. European weather has been generally more favorable to the wheat crop this year and the fertilizer shortage has been much improved. Over-all yields in the U. S. S. R. are not expected to exceed the low averages of recent years. For detailed information, see Foreign Crops and Markets, issued by Office of Foreign Agricultural Relations.

The First Freedom: Lester Schlup mentions the book of this title, by Morris Ernst, in one of his weekly letters to State extension editors. He says it took him some time to get to reading and then sauntering through the book, and he found much therein of value. According to the reviews, which are as far as *we* have gotten, the book discusses the instruments of communication, press, radio, motion pictures, who owns them, how the free flow of ideas through them may be impeded, and what is required to foster the world-wide and Nation-wide human understanding which alone can act as a basis for an enduring peace. Les' quotations from the book, which we lack space to reproduce, excite and stimulate. Get it from the Library or your book seller.

Citrus fruit industry: Marketing and Transportation Situation for August contains an excellent review of Readjustments in Processing and Marketing Citrus Fruits, abstracted by H. L. Cook from a detailed report scheduled for early release and prepared with cooperation of a number of individuals and agencies in USDA. The Situation will announce when copies of the complete report are available.

George Barnes, formerly of Soil Conservation Service and later in the Office of War Information, now handles press relations for the United Nations secretariat.

DDT magic: The health officer of Newark, N. J., announced recently that bedbugs and cockroaches would soon become "mounted museum pieces," so effective was DDT in their eradication. Whereas complaints about vermin-infested dwellings in summer had hitherto come in at the rate of three or four a day, they had dwindled now to about one a week. DDT for insect extermination is so simply applied and so effective that residents of poorer housing areas seize upon it to end one of their greatest annoyances. Says Newark's assistant health officer: "If the American people want to, we can make the bedbug extinct within two years." All in favor of extinction—apply DDT!

Meloy retires: Guy S. Meloy, who retired July 31 from his position as cotton marketing specialist after 48 years of service, was the creator of the Department's grading standards for cottonseed and linters. During his last 10 years of service, he established and headed the Department's cottonseed grading and market-news service and was chairman of the U. S. Board of Cotton Linters Examiners. During World War II, when a critical shortage of linters and vegetable oils developed, Mr. Meloy was asked to delay his retirement to head a committee to standardize the method for the chemical analysis of soybeans. He completed this project and was asked to accept a second extension so that he might continue his activities until the war was over.

Wheat Council: The thirteenth session of the International Wheat Council, comprising representatives of the Governments of nine wheat-importing and four wheat-exporting countries, met at the Department August 19, and reelected the U.S. delegate, Leslie A. Wheeler, Director, Office of Foreign Agricultural Relations, as chairman. The vice chairman is Netherlands' delegate, L. A. H. Peters. For details see press release 1831. Write Press Service or phone 6114.

Secretary's Memorandum No. 1171, of August 19, established within the Department an agency to be known as the Farmers' Home Administration, as per the Secretary's order of August 14. Those interested in the memorandum and/or the order may procure them from the Office of the Secretary.

Research Achievement Sheets: Agricultural research continues to achieve. Sheet No. 61 tells how oat production has been increased to a value of *150 million dollars a year* by the development of disease-resistant varieties, as a result of a prolonged program of research, by T. R. Stanton and numerous associates, which cost about $100,000. No. 62 discusses the discovery that crested wheatgrass was a big help in revegetating the Northern Plains, work for which H. L. Westover and associates were responsible, which cost not more than $70,000, and brings additional total annual values to U. S. farmers of *5 million dollars* in the form of hay, grazing, sale of seed, soil stabilization, and improved land use. Get these sheets from E. G. Moore, Agricultural Research Administration.

Phenothiazine Story: This is the title of an article drawn from an interview with Dr. Floyd DeEds, pharmacologist, Western Regional Research Laboratory, telling the story of this remarkable drug, in the therapeutic development of which USDA scientists took so large a part. It appears in Medical Record for August, pages 454–55; procure from Library, or at 215 Fourth Ave., New York City 3.

Chemicals in food: If you are interested in the Addition of Chemical Substances to Food, and can stomach a candid account of what goes on in this field, as well as of what has been proposed, W. B. White, Chief of Food and Drug Administration's Food Division, Washington, D. C., made a readable, though in places somewhat technical, presentation of the subject June 7. The address has been mimeographed and reprints in limited number may be had by addressing Dr. White directly.

Penicillin: If you are the slightest bit confused about penicillin and its five fractions, F, G, X, K, and dihydro F, look up an article called "Penicillin Facts and Rumors" on page 1423 of the Journal of the American Medical Association for August 24. Most commercial penicillin is G, in case you are interested. K is rapidly destroyed or eliminated by the body. F and X are still under research investigation, but appear to be clinically active. All penicillin and penicillin pharmaceuticals on the market have been tested and certified as to safety by the Food and Drug Administration.

Alma mater: We spent August 28 on the campus of the University of Maryland. One old professor, now Director of Extension, T. B. Symons, examined us critically and pronounced us an old student, a remarkable feat of memory, as we had not met for 35 years. He had just parted company with his gall bladder, looked chipper and young, was his always urbane and charming self. We met Extension Editor A. H. Snyder, hard at it on an exacting job. J. T. Kangas, in charge of agricultural information, was our pilot. He kept commenting on how different the campus looked now from what it did when he first saw it in 1939. We felt the same way, only we first saw it in 1907! We were lost utterly.

FAR advises that water-use and resource-development achievements in the Tennessee Valley are serving in India and Africa as models for projects similar to TVA. Funds have been budgeted for preliminary work on a State-sponsored hydroelectric and resource-development project in the Indian State of Hyderabad, Deccan, to encourage agriculture and industry, and thereby raise living standards, in an extensive rural area along the Godavari River. Plans are to irrigate a million acres of rice and fodder land, and encourage establishment of industries for manufacture of fertilizers, steel and iron, and other products. In South Africa, the Government of Southern Rhodesia is considering plans for providing water for irrigation and extending inland navigation by constructing a dam on the Zambezi River. This, according to advocates of the project, would create an inland market for domestic products and improve the economic life of the area.

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USDA

FOR OCTOBER 14, 1946

"Changes"

THERE has been a technological revolution in agriculture. Tremendous changes have occurred which add up to an unprecedented break with the immediate past. Nor is there any road back, while more startling changes lie just ahead. If there ever was full justification for expenditures on scientific research, this is it, for that was the primary factor which touched off the revolution described by Sherman E. Johnson, in Changes in Farming in War and Peace, Bureau of Agricultural Economics, June. In a way this publication is a follow-up of Farm Production in War and Peace, by Glen T. Barton and Martin R. Cooper, also of BAE. For copies of either, address or phone (Ext. 4407) Economic Information, BAE.

What has happened? During the war years farmers produced as they never did before, this in spite of acute labor, material, supply, and equipment shortages. The increase in total production from 1939 to 1944 was twice as large as during 1919 to 1939. With normal weather (the weather was actually abnormally good) gross farm production in 1942–44 would have averaged 117 percent, and farm output at least 120 percent of 1935–39. The output of food in 1944 was sufficient to supply about 50 million more people than the average for 1935–39, assuming identical dietary levels.

What fostered this revolution? Farm population dropped from 30 million in 1940 to only 25 million in 1945. Farmers had 8 percent fewer workers in 1944 than in 1935–39. Harvested cropland increased only half as much between 1935–39 and 1942–44 as between 1910–14 and 1918–19.

The bounty came from increased mechanization; increased use of fertilizer, lime, and soil-conservation practices; the adoption of improved crop varieties; changes in land use and rotations; a 50 million acreage formerly used to grow feed for work animals now turned to human needs; increased production per livestock unit; improved protection from diseases and insects which prey on plants and animals; and scientifically devised incentives for the increased production of specifically needed crops.

What of the future? This revolution cannot be stayed. It will continue to progress. For some crops there may be a need for adjusting production to market demands. Procedures must be developed that will promote a high demand for farm products, so that we may benefit most from abundant and profitable farm production. Both national and international arrangements must be effected to make good use of all we can raise on our farms, using modern agricultural technology at the highest possible efficiency.

Unfortunately we cannot go into details in the space at our disposal. We can only urge that you get this fundamentally important document and study it for yourselves, preferably in connection with its predecessor, mentioned in the first paragraph, as well as Raymond P. Christensen's Using Resources to Meet Food Needs, May 1943, and the notable special report of August 1940, Technology on the Farm. All are BAE publications. Though the two last named may be out of stock, the Library has copies.

R. H. Shields leaves: Secretary Anderson announced on September 23 that Mr. Shields, Administrator of Production and Marketing Administration and President of Commodity Credit Corporation, is leaving the Government to become executive vice president and general counsel of the U. S. Beet Sugar Association. The Secretary said: "We are sincerely sorry to see Bob Shields leave the Department. Through many years he has proved himself an unusually able public official. . . ." With the Department since 1934, Mr. Shields served successively in the Agricultural Adjustment Administration and Solicitor's Office, and as Assistant to the Secretary and Judicial Officer and as Solicitor, before assuming his duties in PMA this year.

Management

MOST employees in Washington and in the field lack opportunity to attend the Organization and Procedure Conferences held every now and then in the Department. Fortunately for those with a sincere interest in better organization, management, and procedures as applied to Government operations, three mimeographed papers are available in limited quantities to those who care to apply to the office of John Thurston, Secretary of the Administrative Council.

The first is a talk on Organizing Around an Executive—in particular around the head of a large Federal Department—which Paul H. Appleby, former Under Secretary of Agriculture and now Assistant Director of the Bureau of the Budget, made March 27 at the annual conference of the American Society for Public Administration.

The second records talks before the Organization and Procedure Conference of USDA, April 23, by F. G. Lee, Acting Under Secretary of the Treasury for Britain, and Roger Stevens, Secretary of the British Civil Secretariat in Washington, D. C. The subject is Coordination of Policies and Operations in the Government of the United Kingdom, and an informative question–and–answer section follows the informal talks.

The third is the important and stimulating talk delivered by the Hon. R. R. Zimmerman, Administrative Assistant to the President, before the Department's Organization and Procedure Conference on June 3. His subject was More Teamwork in Management, and he covered it in a most stimulating manner.

Which wins?

WHICH will win out in the world—population or food supply? Ever since Malthus, pessimistic souls have feared that increase in the former would eventually so far outdistance increased food production that starvation would stare us in the face. Could be.

Today it is estimated that agricultural technology has reached a sufficient degree of perfection to permit us to produce enough food to give all the world's people adequate diets, provided that food can be distributed equitably. But we live in a postwar world wherein the food supply has been cut 12 percent per person from what it was before World War II.

A report issued this past summer by the Population Reference Bureau of

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Washington, D. C., contains some arresting information. Despite tremendous losses of life due to bombings, battles, mass executions, and famines, the world's population has increased 7 percent since 1939. At the same time war devastation and shortages have seriously reduced food production. The Bureau maintains that a vicious circle has apparently been set up, in which population rises as fast as the food supply increases, and a recurrent succession of wars and famines occurs.

It is estimated that the world's population increased by 563 millions between 1900 and 1940. During the decade immediately preceding World War II the increase was 200 millions. No such increases have ever before occurred in like time throughout the world's history. The size of the increase during the decade preceding World War II equals the combined populations of the United States, Great Britain, and Canada.

If it were not that the death rates of two-thirds of the world's peoples are three times those of the countries just named, the total increase would have been stupendous. Indeed, if the death rate of India, China, or Russia were halved without reduction in birth rates, any one of these countries could produce a population as great as that of the entire earth today. Nor could present farm technology methods feed such a multitude amply. So which will win, population or food production?

Those filthy Ruritanians

EVERY now and then an outraged American citizen returns from some far Ruritania and comments that the people are filthy. They are careless about their hospitals, schools, and public buildings, which are littered and smeared. They are apathetic about appearances inside and out these structures, unappreciative, ignorant, and given to destruction of property, which is none the less revolting because not malicious.

Well, look about you. Look about the building in which you work. Look at the smeared walls—do we never wash our hands? Look at the plaster knocked out here, the woodwork dented or broken there, the wall finish scraped and disfigured, the furniture chipped and scratched. Ask the guards and caretakers in any public building, ask the management of any hotel. You will hear an almost incredible story of deliberate property destruction by Americans.

Sometimes we say they merely destroy the property of others. That is not wholly true. They also destroy their own property; even in their own homes you can observe this. But public buildings also are the people's property. To deface or soil them is to injure ourselves, and, when we have to work in these buildings and offices year after year, spending far more time there than we do anywhere else, we are foolish indeed to hurt the looks of our surroundings.

Who are these filthy Ruritanians? Can that mean us?

Public opinion surveys

HOW ACCURATE are our efforts to ascertain facts or opinions by questionnaires or interviews? It is generally conceded that less than one percent of people approached in person will refuse to take part in an inquiry, whereas up to half will consign a printed questionnaire to the waste basket, thus vitiating the returns. But how sample the population? The methods of the Ancient Mariner, who stopped one in three, are scarcely dependable.

The selection of a representative sample is a difficult matter to which our Bureau of Agricultural Economics devoted itself, in a piece of successful research which enabled it to emerge with the Master Sample, previously discussed in *USDA*. Then there is the matter of so framing questions that answers will be trustworthy. This also is difficult. We really do not know how far the opinions or even the apparent factual data presented by a person interviewed may be distorted by the interviewer's technique, or colored by the emotions of the interviewee.

Again, to what extent can persons interviewed accurately recall an event to which cross-examination is directed? How many can really remember how many colds they had last winter and how severe they were; what the extent of their breakage of domestic crockery (noncombative) was over a set period; at which age each of their 10 children was immunized and for what? How many can completely and accurately describe what they have eaten during the past 24 hours, in correct quantitative terms? How accurate are our memories usually?

All this is not to deprecate public opinion surveys. It is just to raise the question of the care with which they are made and of the necessary background of social science research required to render them reliable.

Goldfish bowl

YOU work in a goldfish bowl. Never forget that. You are paid out of other people's money raised by taxes. If you sit with your feet on the desk reading a newspaper you are, to the public, the Department of Agriculture sitting with its feet on the desk reading a newspaper. Whether you work in the field or in Washington, those who enter your office or laboratory, or who even walk the corridors, place the Department in judgment on a basis of your deportment.

No doubt you have been downtown in some big city around 10:00 or 10:30 in the morning, and have seen hundreds streaking around office buildings or across the street to get coffee and cokes. No doubt you have at some time had a hotel room which enabled you to look into half a hundred offices in some big bank, insurance company, or office building, and you have seen so much of what looked like plain loafing you wondered how any work ever got done. No doubt you are familiar with the loafing on others' time that goes on throughout much private business. Forget it. Your business is to see to it that you do not give your employer, the American people, and its representatives, any cause for an impression that you loaf on Government time.

Not long ago a business magazine commented on the treasurer of a big advertising concern who found workers kidding, clotted in the offices of others while their own were vacant, discussing politics or baseball, "fanning the breeze" with their feet on desks, drinking coffee—and he asked in irritation, "Don't any of these people *have* any work?" Next he queried the big boss: "*Can* it *pay* you to let people talk *fishing* on *your time?*" and the big boss replied:

"I don't buy time. I buy work. I don't care when or where they do it. If some like to sit around half the day, then suddenly strike when the iron's hot—well, when you've finished checking the books, you'll see whether it pays to let 'em."

Even that doesn't concern you so much in your goldfish bowl. We know you work long hours overtime when the call comes. We know those books in which the watchmen collect signatures after hours represent work. We know you willingly give more service than you may appear to be giving. But remember that you work in a goldfish bowl, and it is not only by your works but also by your appearance that the public, often idly strolling by, comes to know you and your Government.

Thar she blows!

FARMERS whose lard normally competes with whale oil in world markets are advised by the Office of Foreign Agricultural Relations that the Antarctic whaling industry is becoming more scientific in its operating methods, and is beginning to recover from its wartime production slump. Whaling has changed a lot since the days of Moby Dick, and there's more efficiency than romance to it nowadays. Using radar to locate the monster mammals, Antarctic whale hunters are now able to produce three times as much whale oil, to meet the world's urgent need for fats and oils, as during the average wartime year. The output, totaling 153,000 short tons, was only about one-third of average prewar production, however.

Next year the Antarctic whalers, who normally collect about 90 percent of the world's whale oil, intend to use amphibian planes catapulted from ship decks, to spot the leviathans of the deep. Whaling ships themselves have changed in modern times. Called "factory ships," they are floating industrial plants for extraction of oil from captured whales. Only Norway and the United Kingdom sent whaling ships to the Antarctic this season. Germany and Japan, which normally engage in the industry, were unable to send any.—QUINCY EWING, FAR.

Fiji agriculture

THE Agricultural Journal for March 1946, Vol. 17, No. 1, recently blew our way quite unexpectedly. It came from the Department of Agriculture, Suva, Fiji, and bore on the front a rough drawing of a typical native. Not so long ago the Fiji Islands made us think of cannibals, wild savages, and toasted missionaries served garnished with native greens. Today the Fiji journal chastely discusses some Fiji mites, a new type of damage by the coconut spathe borer, the need for growing more rice, the necessity for clean paddy seed, and 666 versus DDT! Its cover says "Grow More Rice!"

An officially adopted statement for policy and action by the Fiji Department of Agriculture stands at the beginning of this issue of the journal. The Department's function is to preserve the land and other natural resources, to conserve and improve soil fertility, to improve and encourage food crops, livestock, and optimum nutrition of the people, and to foster efficient production of raw materials for export and for local secondary industries. It has experiment stations and undertakes soil surveys. Field extension work is discussed. Agricultural education, marketing, and cooperation with industry are all mentioned.

It sounds very familiar. It looks admirable. Now, not the missionaries, but household and plant pests, and noxious weeds are under attack, while methods of inducing the giant toad of Queensland to eat destructive insects occupy attention. Such is progress. So moves civilization.

FSA families meet research

MORE than 2,000 of the Alabama farmers who are buying their farms through the Farm Security Administration tenant-purchase program visited State experiment stations recently in one-day tours planned by M. H. Pearson, State FSA Director. For most of these former tenants, it was the first opportunity to see results of scientific experiments with typical southern crop and livestock enterprises.

The series of group visits began late in July when 500 families from a nine-county area toured the Wiregrass Substation at Headland to see results of soil-building measures and a 3-year cropping system involving hogged peanuts (letting hogs eat the crop directly), then dug peanuts, followed by blue lupine and corn. They saw a 40-acre submarginal tract being recovered by the use of kudzu and alfalfa.

A trip to the Belle Mina substation drew 1,200 visitors from eight TVA counties, who observed what has been accomplished in lowering the cost of dairy production. Fred Stewart, director of the station, told them that grain feeding of cows does not pay when there is abundant pasture. He cited figures for a 4-year period showing an average of 6,600 pounds of milk per cow with concentrate feed compared with 6,300 pounds without it. While the 300 women visitors inspected the gardening and milk experiments, the men saw demonstrations of soil preparation for crimson clover, growing of sericea lespedeza, grain sorghums in rotation, alfalfa production, and establishment of permanent pastures.

Families visiting Belle Mina organized a Bankhead-Jones Farm Ownership Association to promote family-type farm ownership and to perpetuate the aims and ideals of the late Senator Bankhead. They agreed to meet each year at the station. Similar tours for groups from other counties have been made to the Winfield, Prattville, Auburn, Lafayette, and Aliceville stations.—FRANCES HUNT, FSA.

Folklore of red-tapism

WE CAN all think of numerous pompous phrases which camouflage the real state of affairs and show that the writer is up a stump. The following glossary of red tape, written by Mrs. J. N. Cornelius, pillories some of them. It was given to us by Field Agent Mena Hogan, strictly in the interest of professional improvement, of course.

Under consideration means: Never heard of it.

Under active consideration means: Will have a shot at finding the file.

Have you any comment? means: Give me some idea what it's all about.

You will remember means: You have forgotten, or never knew, because I don't.

Transmitted to you means: You hold the bag a while; I'm tired of it.

Kindly expedite reply means: For heaven's sake, try to find the papers.

Passed to higher authority means: Pigeonholed in more sumptuous office.

In abeyance means: A state of grace for a disgraceful state.—*From Scoop News, Fairmont, Minn.*

Insofar as *USDA* is concerned, this was "scooped" from Les Schlup's weekly letter to the extension editors. Thanks a lot.

Earlier retirement

RECENTLY the writer of Topics of the Times (New York Times) wrote in advocacy of an earlier retirement age for all types of workers. He stirred up a little controversy among workers who loved their jobs and would feel lost without them.

One wrote: "Fortunate is he who has developed and can maintain a keen interest in a congenial job which he can keep until age or ill health prevents his doing it acceptably. There is nothing more conducive to enlightened happiness. Reasonable opportunity for leisure during our working hours is essential. The prevalent demand, however, for earlier retirement is a delusion." Well, as the saying is, it is and then again it isn't. It depends on the job.

Even this writer remembered those unfortunates "doomed to long, tiring hours and years in jobs they cannot enjoy." There are more of these unfortunates than of the happy souls whose job is their life and whose work lends dignity

and stature to their personalities. The Department of Agriculture naturally employs many who would simply be lost without their jobs. That is why so many of them become collaborators and gratuitously continue their investigations—for these are usually scientists—on retirement.

However, there are such things as hobbies. Travel will do, if one can somehow afford it. But it pays in many cases to build up a lively interest in some preferably useful and stimulating activity, gradually veering over to it as inevitable retirement looms. Many have bridged this gap most successfully and have gone on enjoying life during years of good health and accomplishment. Too many have made no such provision for retirement—and it is just as important as savings or an annuity—and have simply sat down and died after leaving the job. If you aspire to longevity, cultivate a hobby and develop a collateral line of work to occupy and interest you on retirement.

To avoid trouble

A YOUNG woman worker recently gave an interesting recipe for the avoidance of unnecessary trouble. It is very simple, yet very wise. It ran to this effect:

"Never tell any third person what a second person said while you were alone together."

The rule is absolute. It applies to the most trivial confidences, for it is impossible for us accurately to judge just what things another says to us are confidential and important in his or her estimation, and what ones are quite unimportant and can be passed along. It is a very good rule and the young woman says it works exceptionally well.

When she is told anything it stops with her. To be sure, she can guide herself and even her boss quite wisely at times by her knowledge of what has been said to her in confidence. By never violating that confidence she learns far more than people ever do who tell all they hear. In addition she avoids the charge of being a gossip and she stays out of the trouble tale-carrying involves.

At times she is criticized as being evasive about trifles or too nontalkative. That is as may be. There are other things about which she can talk her head off if she gets ready—but they are never what any person told her when just the two were alone together, or even when three or four were speaking freely in supposed confidence.

In the beginning

HENRY L. ELLSWORTH, son of the third Chief Justice of the Supreme Court, became Commissioner of Patents in 1836. His office was located in Blodgett's Hotel, a building erected at Eighth and E Streets NW in the late 1790's, and sold to the Government for office use in 1810. Ellsworth addressed his first annual report to James K. Polk, Speaker of the House, on January 1, 1838. Therein he expressed deep regret at the loss of his building and its contents, for Blodgett's burned in December 1836, carrying along with it material deposited by Robert Fulton and many other patent models and records of value.

In this first report Ellsworth also argued ably that husbandry was not a natural blessing requiring no aid from government, that an age of advancing farm technology was beginning, that steam plows and other steam-driven farm implements would soon be available, and that the national income could be increased 15 to 20 million dollars a year by the introduction of better grain varieties. A year later he reported that the building into which his office had been moved (now occupied by the Federal Tariff Commission) was much overcrowded, and that he urgently needed two more examining clerks to assist the overworked two he had.

His 2-page report for 1839, dated January 1, 1840, announced that the diplomatic corps would henceforth send in plants and seeds of interest to farmers in this country and reported the expenditure of $126.40 on agricultural statistics and seeds. However, there was included a letter, dated January 22, 1839, addressed to Isaac Fletcher, chairman of the Committee on Patents, in which Ellsworth argued so ably for Federal funds to aid the agricultural industry's expansion that Congress granted him $1,000 to be expended on the collection and dissemination of agricultural seeds, plants, and statistics. That's how USDA began.

Enter Mr. Smithson

In the aforesaid letter Ellsworth mentioned Baden corn, Italian and Siberian wheat, the extraction of sugar from beets and from cornstalks, the culture and manufacture of silk, the cultivation of flax, the urgent necessity for better agricultural statistics as matters upon which Federal funds might well be expended. By January 1841, he was hoping to get into his new building (now occupied by the Civil Service Commission), and announced that thousands of packages of seed from remote parts of the globe would soon arrive and be distributed.

Yet, in January 1842, Ellsworth had been prevented from occupying his new building, because a national institute provided by an English Mr. Smithson had to occupy it temporarily! Ellsworth went on that agricultural chemistry was of supreme importance and should be fostered by government, that pork could be converted into stearine to make candles and the same could be done with corn oil, that we should raise more agricultural products and import less, and that farmers could only sell wisely when provided with reliable statistics.

A year later, reporting for 1842, Ellsworth bespoke his need for more scientific books, insisted that Congress appropriate more and regular funds for agricultural purposes, and announced he had expended $105.75 on agricultural statistics that year. In his report for 1843, dated January 31, 1844, the year he resigned from office, Ellsworth told how Federal farm aid could increase the national income by 30 million dollars, stated he had expended $444.67 on agricultural statistics, and then expressed elation over the invention of the telegraph, the medicinal applications of electric batteries, the "electro-magnetic" fluid which gilded metals and removed bladder stones, and the fact that Paris now illuminated her streets "by means of the electric spark."

Such were USDA's beginnings? Do you like history? Want to hear more?

Canadian co-ops

THE cooperative movement spreads rapidly in western Canada. In Alberta, cooperatives operate as a branch of the Department of Trade and Industry. Its more than 300 associations handle dairy and poultry products, grain, seed, livestock, and honey, and the co-ops have 200 000 members.

It is estimated that 47,000 are co-op members in Manitoba, where the Federation of Agriculture and Cooperation now embraces some 13 cooperative societies, which, in turn, include 180 local elevator associations and 74 local co-ops affiliated with the Manitoba Cooperative Wholesale, Ltd. New organizations are constantly making consumer cooperation possible in new areas and providing services not formally available on a co-op basis.

Saskatchewan has a separate Department of Cooperation in its provincial government, with a Cooperation Min-

ister, who recently told its lawmakers that the people of the province are anxious to build their economy upon co-op development. The province has 876 cooperatives engaged in business totaling nearly 200 million dollars a year and with nearly 300,000 members.

"A pretty nice spot"

TULARE Farm Labor Supply Center at Linnell, Calif., is one of the many such centers operated by the Labor Branch of Production and Marketing Administration. These centers supply laborers to work on farms in some of the large agricultural areas. The little community at Tulare Center is made up of 50 three-room houses, 30 apartments, and 285 metal cabins, all occupied by agricultural workers except buildings used by the staff. For the past 16 months there has been an average of 1,336 registered residents. Last year at the nearby school the average daily attendance of children from the center numbered 378, or 95 percent, of the total enrollment.

Tulare Center Council, an elected governing body, takes care of recreational and community activities. The Linnell Community News, sponsored by the council and published by young people of the center, gives a vividly human look-in on the little community. Its notices of safe-driving and accident-prevention campaigns, house and garden inspection, the Well Baby Clinic, and council meeting activities reflect community spirit.

The center is especially proud of its school-lunch canning program, supervised by the Parent-Teacher Association. A large part of the work was done by the 12- to 14-year-old boys and girls. With 1,500 quarts of fruit and vegetables canned to date, their goal is 2,400 quarts. Their school was the only one in the county last year to provide a Class A lunch—cost, 13 cents.

The following bit of candid camera gives a center worker's experience. A former worker under Farm Security Administration, he relates that after more than four years in the Army: "I applied for my old job. But FSA said, '. . . We don't own you any more—we traded you to PMA for a long-eared mule to work a farm with.' They sent me to PMA who gave me a job and sent me here to Linnell—I think it's a pretty nice spot."

We still have some indexes to Vol. 4 (1945) of *USDA*. Write the Editor, or phone Miss Glick, 5451, or Miss Arnold, 4875.

They "dood" it!

SHERMAN BRISCOE (Information) recently toured 29 counties in Tennessee, Arkansas, Oklahoma, Texas, Louisiana, Mississippi, Alabama, Georgia, and North and South Carolina, to get an idea of the extent to which colored cotton farmers were following recommended practices in the Seven-Step Cotton Program. He also checked up on the supplementary cash and subsistence crops they were growing. He returned with a vastly informative report, material for at least 26 articles, and 200 excellent photographs.

Colored farmers are adopting the cotton program and fitting this crop neatly into balanced farm plans by following other recommended practices. Many share croppers and day laborers are being replaced by mechanization, but owners and renters who plan their own programs will be able to remain in agriculture, using the machines to their profit. Hundreds of colored farmers have already mechanized; others intend to mechanize. Farm and home agents are growing increasingly helpful as they drop standoffish or teacher manners and rapidly become just one of the people they serve.

Two stories had special interest for this reader. One concerned a Texas farmer who lined up 20 discarded plows and 35 hoes, saying mechanized equipment had displaced these and half a dozen tenants as well on his 900-acre cotton farm. His two tractors and $1,200 worth of attachments, including a cotton chopper, now do the work of 50 field hands. With the new equipment two men can chop 30 acres a day at about 50 cents an acre, as compared with an old rate of 10 times that much for doing the same work by hand.

The other story also came from Texas and concerned a 54-year-old farmer who wanted to get his watermelons to market early and receive the best price. He therefore sought to speed up the growth and maturity of the melons, so he hit on an idea of getting them to sprout quickly. He dug a hole, sterilized it with boiling water, and buried a flour sack of seed in it. Each day he poured warm water over the covered hole. Soon his seeds were sprouting, he set them out, had melons 2 weeks ahead of anybody else in the community, got top price, and sold eight carloads to gross $6,000. American inventive genius survives by a long margin.

Worm with an idea

IN THOSE days when we wished for steak and could not get it, we should have been far better off had we mastered the idea the nematode or eelworm long ago evolved for feeding itself. In the first place the worms are very selective as to their source of food. A golden nematode will attach itself only to the roots of a potato, or a close relative thereof like the tomato. The sugar-beet nematode feeds only on the sugar beet and its relatives, the wheat nematode on wheat and a few other cereals and grasses.

Why is this? It's because the nematode thus gets what it wants out of life, food so well suited to its health and well-being that it does not have to be digested and is absorbed without residue! Even if a human being used his twin brother as a source of protein, on the presumption that the proteins of that twin would resemble his more closely than the proteins of any other animal or human being, he couldn't do that well. He'd still have to digest his twin.

But the nematode just injects, into its preferred food plant, specific chemicals which unlock from it exactly what the worm needs for food. Once secretions of the nematode's salivary glands get into the wheat plant, for instance, the plant begins to manufacture exactly the kind of food the worm needs. That food is all food. The nematode assimilates it directly, leaving its atrophied digestive channel little work to do and no waste products to eliminate.

Here's a worm with an idea. What agricultural scientist will come forward and be first to tell us how to gnaw a tree and get pork chops, or is the nematode always going to be better off than man?

Feeding the potato

THE POTATO plant is rather fussy about its food. If it is not placed on the "table" properly, the plant may not touch it. This makes the question of fertilizer placement quite important with the potato.

Bailey E. Brown, senior biochemist, Division of Fruit and Vegetable Crops and Diseases, Bureau of Plant Industry, Soils, and Agricultural Engineering, who pioneered in such studies, retired not long ago at the close of Department business on a Friday. Monday morning following, a commercial fertilizer company started him to work as head of its new

research unit! That gives a rather clear idea of how the commercial potato industry regards the fertilizer placement work.

Brown came to the Department in 1901, after graduating from Alabama Polytechnic Institute. He reported to the old Bureau of Soils, just elevated to Bureau status, with Milton Whitney in charge. He soon began to specialize on the soil and fertilizer problems of the potato grower, his field studies ranging from Virginia to Maine. While he has devoted considerable attention to new fertilizer materials such as urea and ammonium nitrate, as well as to the effect of borax on potato growth, it was his work with fertilizer placement that paid the largest dividends. He found that the best results were obtained when the fertilizer was placed some two inches to one side of the potato seed piece, and slightly deeper in the soil. Nine out of ten commercial potato growers now use this method. Perhaps we should make it clear that this is the band placement of fertilizer, not, as one reviewer had it, the *hand* placement!

In his lighter moments, Bailey was for years a star bowler with the Bureau of Plant Industry duckpin team. The "Babe Ruth" of the outfit, his high-game bowling played a vital part in winning half a dozen championships.—JOHN A. FERRALL, PISAE.

New tie that binds

THE tarnished plant bugs suck the wax-bean stems; the blossoms and small pods fall off; the wax string bean crop is reduced. Long hot days make it worse. But scientists are fastening the blossoms and pods on. They don't use string or glue—they use chemicals. To be exact, they use a dust containing alphanaphthalene acetic acid. This is the same stuff fruit growers use to hold apples on the trees.

A little goes a long way. Depending on conditions, a dust with as little as 80 parts per million has worked. In some cases it has increased yields up to 20 percent.

A team of entomologists, plant pathologists, and commercial growers in Wisconsin worked this out. They have done some things that seem new to this kind of work. First, they used illuminating gas to knock the leaves off bean plants whenever they liked. Then they tested in the greenhouse at will a number of so-called hormones, to hold on the leaves, and selected the best. Next, they showed that these hormones would hold on blossoms and small beans that the insects would have caused to fall off. Finally, they found that under certain conditions an insecticide can be applied with the hormones, thus reducing the number of obnoxious insects.

The greenhouse work was repeated in several fields during each of three growing seasons. Many variables remain to be worked out for other places and different conditions. So if you try it, you should do it on a small scale first. A. J. Riker, cooperating with entomologists at the University of Wisconsin as well as with the State's commercial bean growers, is, in the main, responsible for this work. (Details in Phytopathology 36 [July]: 504–523, 1946, illus.)

Document No. 1 revised

USDA Document No. 1, Origin, Structure, and Functions of the U. S. Department of Agriculture, has been revised to bring it up to September 5, 1946. It is 21 pages long and is devoted primarily to the over-all story of the Department's structural and functional development. Like No. 4, the Condensed History of the U. S. Department of Agriculture, it is valuable for orientation purposes, but No. 1 is more technical than No. 4 and more useful for reference. Document No. 2 is the one to get, however, if your primary interest is in the details about Constituent Agencies of the U. S. Department of Agriculture.

While we are at it, we also mention again Document No. 3, an Abridged Chronology of Agriculture's Part in the War. Extending from May 1940 until October 1945, it tells what happened and when it happened, covering war activities in which the Department of Agriculture was concerned. For your further information, Document 2 is dated September 1946, Document 3 has not been and is not to be further revised unless we are requested strongly to revise it, and Document 4 is now dated August 22, 1946.

The titles and numbers of the remaining documents in this series are: No. 5, Current List of Top Officials of the Department of Agriculture (Abridged); No. 6, Important Recent Achievements of Department of Agriculture Scientists; No. 7, Outstanding Scientific Publications by USDA Research Workers Issued by the Department of Agriculture; No. 8, Abridged List of Federal Laws Applicable to Agriculture (Including Reference to Former Functions); No. 9, Biographies of Persons in Charge of Federal Agricultural Work, 1836 to Date; No. 10, Our Department Scientists.

To procure any of them, phone Miss Glick, Ext. 5451, or Miss Arnold, Ext. 4875, or *preferably* write T. Swann Harding, Office of Information, Department of Agriculture, Washington 25, D. C.

Hustle-bustle

WE WERE speaking of workers who go always at a frantic pace, who work time and overtime, whose days are filled with frenetic telephone conversations, mad dashes to almost-missed appointments, gulped luncheons at odd hours. Such people dash madly but always a little belatedly into conferences, query frequently, riffle the pages of their numerous notebooks, jot down items in the books or on stray bits of paper which litter their wake as they steam off elsewhere. Their work day is a continuous frenzy. They remind you of the fellow who mounted his horse and then rode off furiously in all directions at once.

What is it all about? Is all that hustle-bustle necessary? Is all the overtime necessary? Yes, it probably is, for the way these people work, they get everything into disorder, including offices, desks, and brief cases. Because they usually lack all sense of organization, it takes them many hours to find things that others would have probably filed or catalogued. But much of the darting clamor is a subconscious effort to convince themselves, and others, that they really do work very hard at very useful tasks.

The editor's mind reverts to his first week as a laboratory helper (dish washer to you) in the old Bureau of Chemistry. He must have been adept at puffing and blowing, making a considerable clatter with the glassware and equipment. Suddenly the man for whom he worked turned toward him his habitually bland, wholly expressionless face and remarked in his habitually even, toneless voice: "You needn't make such a fuss, Harding. We know you're here . . . and doing your work."

Suddenly we saw it all clearly. We had been making a great deal of the racket and bustle just to demonstrate how good we were. This was partly unconscious, of course, but it was a fact. We have never been able to forget that remark and its implications.

Research and Marketing Service Act of 1946: This is the designation of Public Law 733, 79th Congress.

Crop insurance gains

FEDERAL crop insurance was designed by Congress to give farmers protection from various crop losses to which tillers of the soil are heir—insect infestation, drought, flood, frost, wind, and hail. The following letter from a cotton farmer tells what good hard rain can do if it keeps up long enough:

Last year we suffered one of the worst crop failures in our history . . . I feel that I express not only my own opinion, but the opinion of several hundred other farmers in this area . . . I don't see how any farmer can afford to start a cotton crop in which he invests everything—his time, money, and energy—without protecting that investment with crop insurance . . .

I rent the land I farm. I own my own equipment. As is the custom, I gave a mortgage on this equipment to secure a production loan for 1945 . . . I broke my land, bedded it, and had it in good shape for planting. After I planted my cotton seed it started to rain. I saw that the cotton was not going to come up to a stand, so just as soon as I could I reworked my beds and replanted my cotton.

Still it rained. The cotton was slow in coming up, but the Johnson grass grew by leaps and bounds. By the time I could get into the field to work the crop out, the grass had it nearly choked to death. I plowed it and hoed it. I tried everything I knew . . .

On 205 acres of land that normally produces from a bale and a quarter to a bale and a half per acre, I picked a little over 30 bales of cotton . . Under ordinary circumstances the agency from which I secured my loan would have foreclosed on my equipment, and even if I could have rerented the land I could not have farmed without my equipment.

But thanks to crop insurance this did not happen. I was able to pay off my loan, save my equipment, and start the 1946 crop even with the world. Today my crop is above the average and unless something unusual happens I will be back on my feet.

This man was one of the 47,000 insured cotton farmers who lost all or a substantial part of their crops last year. But the premiums he and other farmers pay in years of good and average production will cancel much of this loss. This year, cotton farmers on more than 136,000 farms—about 8 percent of the total number growing cotton—and wheat farmers on approximately 385,000 farms—25 to 30 percent of the total number—are protected by crop insurance. Flax insurance covers 13,000 farms. Corn is insured on an experimental basis on 8,700 farms in 19 counties and tobacco is insured on 14,000 farms in 19 other trial counties. All but 5 percent of the tobacco farmers in Vernon County, Wis.—covering 2,241 farms—have taken out crop insurance.

Outlook: Bureau of Agricultural Economics, the Federal and State Extension Services, Production and Marketing Administration, other USDA agencies represented on the 14 commodity committees, and State personnel directly concerned with the production program took an active part in the 1946 Outlook Conference, October 7–12.

Brief but important

Lose copper; gain manganese: As a part of its broad program of studies to learn the subtle and interlocking relationships between soils and plants and plants and animals, the USDA Plant, Soil, and Nutrition Laboratory at Ithaca, N. Y., has been observing mineral reserves in young animals. It finds that copper and manganese—two elements needed in the animal body, though in very small quantities—behave in opposite ways. Rats, rabbits, and guinea pigs are born with a reserve of copper in their livers but with little or no manganese. During the suckling period, however, the copper is depleted and the manganese steadily increases. Milk contains an inadequate amount of copper to build reserves in the infant animal, the initial store being usually just enough to tide it over the suckling period. Manganese, on the other hand, appears to be present in milk in quantities large enough to build up a supply in the suckling.

Reemployment and retention of veterans: This is the subject of Secretary's Memorandum 1131, Supplement 2, September 10. Those interested can procure from Office of Secretary.

Streptomycin: This drug, the final result of research carried on at the New Jersey Agricultural Experiment Station, is well discussed in the Journal of the American Medical Association for September 7, which contains articles on its use in infections and in tularemia, as well as a discussion of the development of resistance to the drug during treatment with it.

Tariff rates: Bureau of Agricultural Economics has issued a publication entitled "United States Tariff Rates on Agricultural Products," showing all U.S. tariffs and quotas affecting these products, and covering changes in tariff rates and related matters from September 22, 1922, to May 3, 1946. Procure this 121-page mimeographed publication from BAE by mail, or phone 2253 in Washington.

Knipling again: Edward F. Knipling, the oft-before-mentioned-herein brilliant young fellow who was in charge of the Bureau of Entomology and Plant Quarantine's Orlando (DDT) Laboratory during the war, has been appointed to head the Bureau's Division of Insects Affecting Man and Animals, succeeding Emory C. Cushing, resigned. Knipling is a native Texan, with degrees from Texas A. & M. and Iowa State, who has been with EPQ since 1931. Oddly enough, Cushing, distinguished for his typhus control work during the war, is resigning to return to his ranch near San Antonio, Tex. One Texan traded for another!

2,4–D and cows: Pasture tests by USDA scientists indicate that the weed killer known by that friendly nickname does not harm cows or sheep, even when double the quantity necessary for weed control is used. Nor was the health of a cow undermined when she took 5.5 grams of 2.4–D daily for 3 months; she carried the chemical in her blood stream but did not secrete it in her milk. *Tests were made with pure 2,4–D,* remember.

Brucellosis: Harold J. Harris, M. D., has an excellent article in the August 31 Journal of the American Medical Association on advances in diagnosis and treatment of brucellosis. It is comprehensive and documented and was read before the Maine Veterinary Medical Association, and members of county medical societies at Portland, Maine, April 17.

Store home crops, advises Paul C. Stark, Director of the National Garden Program. Late cabbage, potatoes, parsnips, turnips, beets, carrots, late apples, and winter varieties of pears should be stored in a cool, damp, well-ventilated cellar. Dry, cool storage is recommended for dried beans, peas, onions, hot pepper, and cured meats. Pumpkins, squashes, and sweetpotatoes keep best in moderately cool, dry storage. Plenty to do on this front. Get a Fact Sheet, Storing Home Crops, from Distribution Control, Ext. 3511.

Regional basis: We Took the Job Out to the Land, by Hugh Bennett, in October 1946 Soil Conservation (the issue with the alert horse on the cover) invites—and *we do really mean invites,* for it is most readable—the attention of those interested in the regionalization of any of our programs. Read how Soil Conservation Service has gained efficiency and good will by operating on a regional basis the past decade, instead of trying to do the whole job in Washington. See in detail how this was done and why. Then read the remainder of this issue of a fine little magazine.

Scientific books: See Scientific Monthly for September 1946 for interesting recommendations of books about science to be read by nonscientists. The article begins on page 236 and is by Justus J. Schifferes, of Science Publications Council. While you are at it, don't miss Donald F. Jones' (Connecticut Agricultural Experiment Station, New Haven) review of Walter L. Howard's book, Luther Burbank, A Victim of Hero Worship, published by Chronica Botanica Co., of Waltham, Mass.

Travel to and from Washington: In an item, Isolation, in *USDA* August 19, page 4, we said: "It would seem that a bit more travel money could be well spent on visits by higher agency officials to remote field stations." A USDA field employee writes: "In investing funds for more efficient public service and to heighten morale of field men, would it not also be wise to spend some of the travel money for visits to the Washington office by field men? Many field men have never seen the Department buildings, many do not know their Bureau chief, and some do not know their Division chief, or the Washington official under whom they work. Any number have never had the opportunity to visit the Agricultural Research Center at Beltsville. . . . I believe that the Department could wisely expend some travel money for field men to visit Washington and Beltsville."

Protect your pay check: Did you know that if you endorse your pay check "in blank," and it is lost or stolen, anyone who gets it may legally cash it? This is a recent ruling of the Comptroller General. A blank endorsement is when you write your name but don't make the check payable to another person or organization. The Office of Budget and Finance offers the following precautions: (1) Never endorse a check in blank unless it is being cashed or deposited immediately; (2) Never endorse a check in blank if it is to be mailed, but write, "For deposit only—John Doe"; (3) Never endorse a check in blank if intended for payment to another person or a company, but write, "Pay to the order of John Doe," etc. Phone Ext. 6141, in B & F, if you want more details on protecting your pay checks.

How's your personal conduct? Amendment No. 223 to the Regulations of the Department says: "Employees shall not at any time conduct themselves in a manner which might cause embarrassment to or criticism of their duties. For example, employees of the Department whose duties require the enforcement of laws or regulations or who are in a position to award or influence the award of business or to * take or influence the taking

or any other official action which may affect, favorably or unfavorably, any person, firm, or corporation should not accept from any such person, firm, or corporation * any favor, gift, loan, unusual discount, gratuitous service, * entertainment, * or other thing of value; nor should any employee of the Department give or use information acquired by means of his official position to advance the interests of himself, his family, his business associates, or his personal friends over those of other persons. * Acceptance of courtesies commonly extended, such as luncheon or dinner, is not intended to be prohibited; however, before accepting even such a courtesy, employees should satisfy themselves that it would not result in embarrassment to the Department or to themselves.*" Employees are also referred to Regulations 1545, 1549, 3317, and to Personnel Circular No. 84 (and revisions) on political activity.

Strange comparison: Read Jared van Wagenen, Jr.'s, article, U. S. Population Growth Promises New Era for Farmer, Barron's, August 26, in connection with Sherman Johnson's (Bureau of Agricultural Economics) Changes in Farming in War and Peace. You can make some strange comparisons between the two. It is quite obvious that the author of the former had not read Johnson's "changes"!

Good protein: That tiny part of the seed from which new plants sprout, the germ, contains excellent quality protein, particularly in corn and wheat, the latter proving even better than the former in tests carried on by D. Breese Jones and associates at Beltsville. As a matter of fact, wheat-germ protein proved the best to be derived from any plant source. It does just about as effective a job of tissue building as does protein from eggs, milk, meat, and other animal sources. This plant protein could be produced relatively cheaply and would offer an excellent source of what is usually an expensive food element to low-income families. If flattened and sifted out in the milling of wheat flour, wheat germ, which requires no cooking, can be added to cereal, is a yellowish oily flake, has a pleasing nutty flavor.

One thousand: Rural Electrification Administration announced that on September 4 the number of its borrowers reached 1,000, this with approval of a loan of $63,000 to the Mason County Public Utility District No. 1, Hoodsport, Wash. The term "borrowers" as here used refers to all public agencies and private enterprises which borrow REA funds to finance construction of rural power systems. Of the 1,000, 921 are rural electric co-ops, 39 are public utility and public power districts, 20 are municipalities and other public bodies, and 20 are commercial utilities. In this general connection see also Administrator Wickard's excellent talk before the Illinois Association of Electric Cooperatives, at Springfield, press release 1874; phone Press Service (6114).

Alaska! South America! In his letter to State extension directors, dated August 30, Director of Extension Work Wilson interestingly describes his recent Alaskan trip and extension progress in Alaska. Extension Service also has mimeographed a revealing letter from Skuli Rutford, Minnesota's assistant director of extension, regarding his travels in El Salvador, Honduras, Panama, Colombia, Ecuador, and Peru.

Hugh Bennett Day: Hugh Bennett Day, September 9, was sponsored by the Brown Creek Soil Conservation District of Bennett's native Anson County, N. C. The day was proclaimed throughout the State by Governor Cherry, and Dr. Bennett was present to recall his 30-year struggle to gain national recognition of the country's serious erosion problem. It was in 1905 that he and a fellow USDA soils man, W. E. McLendon, discovered and measured sheet erosion during a survey of Louisa County, Va. Thereafter Bennett became an all-time evangel of soil conservation. Today nearly 1,700 soil conservation districts cover 900 million acres and two-thirds of the Nation's farms. About 30 States now have associations of supervisors, and the National Association of Soil Conservation District Governing Officials was recently organized. By the beginning of 1946, some 77 million acres had been given planned conservation treatment. Land damage, which has cost us almost 4 billion dollars annually much too long, is thus being repaired.

Pepper: Don't expect too much too soon. It formerly came to us from Netherlands East Indies, Malay States, French Indochina, Siam, and Nigeria, and Japan dealt pretty harshly with the Asiatic areas. But importation from these regions was authorized September 5, and some pepper should reach this country by the time you read this. Some Indian pepper has also been bought by the Department and should arrive in the near future.

Deputy Director FAO Forestry Branch: Stuart Bevier Show, for the past 20 years regional forester in charge of California's national forests, left Forest Service to report to Marcel Leloup, Director of Food and Agriculture Organization's Forestry Branch, at FAO headquarters, on October 1.

Conference: "El Toro," an out-of-hours production of New Mexico Farm Security employees, which slips in here occasionally from Albuquerque, remarks that a conference is a thing that stirs you up and confuses you to the point that it takes you two weeks to get back into the rut. It also offers Coronet's definition: A conference is a meeting of a group of people who singly can do nothing and collectively agree that nothing can be done. However, we like the old-vintage definition as well as any: A conference is a slightly organized method of wasting time. Any further contributions?

Commended to your attention: Whither, Rural Youth, an attractive and informative booklet published cooperatively by the USDA Extension Service, the American Institute of Cooperation, the American Vocational Association, and the Department of Rural Education of the National Education Association. Written by older youths about their own problems, it is rich in discussion leads and program ideas for young people. Procure copies from Rural Youth of the U. S. A., 734 Jackson Place NW, Washington 25, D. C. Single copies 20 cents; discounts on quantity orders—for instance one-third off for 100 or more copies.

Drugs for veterinary use, listed in Food and Drug Administration's Notices of Judgment 1596–1600 as misbranded and making misleading claims, were: Russells Korum, Russells Spray Inhalant; Pratts Poultry Regulator, Pratts Animal Regulator, Pratts Poultry Inhalant, Wonder Poultry Tonic, Morehog, A. D. D.'s Save the Cow, and Novalene Tablets. If interested in more details about any of them, contact FDA in Washington. If it is a matter of false advertising, instead of labeling, the Federal Trade Commission comes into play, under the Wheeler-Lea Act. For instance, on August 19, the makers of both Careys Mineral Supplement Salt for livestock and A. B. C. Condensed Butter Milk to be used in poultry feed, stipulated with the Commission to cease and desist from misrepresenting the therapeutic properties of their products in advertising. Among false claims for the former was one that Texas A. & M. and the Nebraska College of Agriculture had used a product of substantially the same composition with beneficial results.

Progressive farmer: A. K. Gardiner, winner of the New South Wales Agricultural Bureau's Progressive Farmer Competition, recently visited the Office of Foreign Agricultural Relations. He finds U.S. feeding costs for beef cattle higher than Australia's because more grain and less pasture is fed. Australian bacon pigs are graded Choice when not exceeding 110 pounds dressed weight; a slow fattening period, 4 to 5 months, imparts fine flavor to the meat. American shepherds get more twin lambs than do Australian; there an 80 to 85 percent increase is considered good. Mr. Gardiner believes that Australian unionized shearers are more adept than our relatively unskilled roving foreign shearers, and that wool handling and shearing suffer in the U. S. because we concentrate more on mutton and lamb.

Meat services back to BAI: The Secretary announced August 21 that enforcement of the Meat Inspection Act, the 28-Hour Law, and the related administrative functions, would return to Bureau of Animal Industry from Production and Marketing Administration, October 1. (See Secretary's Memorandum No. 1172, August 21.) The transfer from BAI was made December 5, 1942, to the then Food Distribution Administration, and was a temporary action taken under Executive Order No. 9230. Intent to return these activities to BAI was expressed in a statement signed by the Secretary and the War Food Administrator, July 16, 1943.

School lunches: During 1945 records disclose that 6,655,458 pupils in 43,480 schools participated in this program. State and local contributions of 76 million dollars average $1.50 for each Federal dollar, the total running about $18 per pupil from both sources. Hence Federal funds were more than matched, though the new law requires only 50:50 participation at the outset.

Bureaucracy: The great peculiarity of a bureaucracy is that, too often, it is composed of individuals, none of whom dares be an individual. It thus becomes merely a System (personified) at work. This makes it wholly repellent to the citizen who naturally regards himself as dealing with a vast, unseen, impersonal, unimpassioned, and intangible force against which he feels incapable of making headway. Pause every now and then to consider how your own actions may make your agency appear from the outside looking in, and do your best to have it make a good appearance.

Says a correspondent: "Have you ever observed that the USDA and State bulletins avoid the word 'eat' as if there were something indelicate about it? They imply it with the verbs 'consume,' or 'use,' or even 'serve,' but they never straightforwardly state that any food ever is eaten. I can understand why economists prefer 'consume' in many reports, because it can't be proved that all quantities of food taken into the home actually were eaten. I don't, however, see why an experiment station must say that 'typical farm families *use* chile twice a day' instead of the more accurate, precise, and graphic '*eat* chile at two meals a day.' It suggests Victorian limb rather than leg to me."

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USDA

FOR OCTOBER 28, 1946

Changes in PMA

ADMINISTRATOR Shields of Production and Marketing announced, on September 27, some PMA structural changes designed to eliminate certain no longer essential war units, strengthen staff-level administration, broaden and improve field operations, and increase facilities for marketing service. Commodity program responsibility is still further centralized in the Washington branches, the effectiveness of the farmer committee system is increased, more effective planning and direction of marketing activities will be fostered, and important economies will result.

Specifically, five PMA branches or staff offices were abolished: Office of Requirements and Allocations, Office of Foreign Programs Coordination, Field Service Branch, Materials and Equipment Branch, and Special Commodities Branch. A new Agricultural Conservation Programs Branch was established to formulate and develop Agricultural Conservation Programs, hitherto a Field Service Branch function; all work with fertilizers also went to this branch. Other functions of the Field Service Branch, including primary responsibility for field operations through PMA State offices, went to the office of the Assistant Administrator for Field Operations. Control of all fiscal, shipping, and storage work was centralized. Responsibilities of the assistant administrators were reassigned thus, as of October 1:

E. A. Meyer, formerly an assistant administrator for certain commodity branches, became Assistant Administrator for Marketing, and responsible for all marketing programs and activities, including those under the Research and Marketing Service Act of 1946. Carl C. Farrington, formerly an assistant administrator for certain commodity branches, became Assistant Administrator for Production, and responsible for all production programs and activities. Dave Davidson, formerly Director of the Field Service Branch, became Assistant Administrator for Field Operations, and responsible for over-all direction of State and county administration of PMA programs. Col. R. L. Harrison, formerly Assistant Administrator for Fiscal and Inventory Control, became Assistant Administrator for Fiscal, Shipping, and Storage Work, and responsible for over-all direction of all PMA activities in these fields. Ralph S. Trigg, formerly Assistant Administrator for Administration, became Assistant Administrator responsible for over-all administration.

H. B. Boyd, who has been serving as special assistant to the administrator and as Director of Price, continues in the latter position and is also Director of the new Agricultural Conservation Programs Branch. His two assistant administrators are Allen W. Manchester, formerly Director of the Northeast Region of FSB, and Fred B. Northrup, former Assistant to the Administrator. Further personnel transfers or appointments will be announced as they occur.

Back from Copenhagen

USDA people who attended the Food and Agriculture Organization's recent meeting in Copenhagen found it far swifter and simpler to get to Denmark than to return.

Most of the members of the United States group which attended the FAO assembly piled into a transport plane at Washington airport August 30 and were in Copenhagen in a matter of hours. Coming back after the conference was over was another story, however. Many of the party felt for a while like exiles from their native land when they had to remain in Europe more than 2 weeks after the end of the meeting, because of scarcity of west-bound airplane and ocean-liner space.

Members of the United States group who were able to latch on to high-priority plane seats, or catch rides on fast, medium, and slow ships have reported, following their return to these shores, that representatives of 46 countries labored sincerely and energetically at the FAO conference to find solutions for some of the world's most pressing agricultural problems, and to devise long-term plans to eliminate two basic causes of war—hunger and want.

The conference examined the director general's proposals for a World Food Board and accepted the general objectives of these proposals, namely, stabilization of prices and improvement of nutrition. It set up an international commission to study the problems involved and to propose international machinery for their solution. Nineteen nations will be represented on that commission. Its report will be submitted first to another full FAO meeting and later to the United Nations Economic and Social Council.—QUINCY EWING, FAR.

USDA defended

THE Montgomery (Ala.) Journal sprang editorially to the defense of the Department recently when a farm journal thought it detected a violent clash of opinion between Chief Salter of the Bureau of Plant Industry, Soils, and Agricultural Engineering and Chief Bennett of Soil Conservation Service.

Dr. Salter had spoken at Hot Springs, calling attention to the fact that farm production was half again as large during World War II as during World War I, in spite of 10 percent fewer farm workers, no greater acreage of cropland, and many scarcities. Volume of products produced *per worker* was 75 percent more, and *per acre* 50 percent more during World War II than during World War I.

Next, Dr. Hugh H. Bennett's Miscellaneous Publication 596 was quoted as saying: "Man seems to have a habit of wasting the gifts of nature. Nowhere has our waste been greater, however, than in our misuse of land." The farm journal held that these two Department experts were in flat contradiction. The Montgomery Journal said, "Both Dr. Salter and Dr. Bennett are absolutely right. There is no conflict whatever in the two statements."

The Montgomery Journal then explained how the vast increase in production was achieved—more machines, more fertilizer, improved applied science—yet it went on that our pattern of land use is still imperfect and much poor land, good only for timber, is still under cultivation. Land destined to erode is still plowed; soil is still washed bare for want of soil-holding crops and grasses.

Dr. Bennett is not "using his imagination without facts," as the farm journal emotionally charged. He is telling a

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great truth. Recognition of that truth by agencies carrying on conservation has restored or saved from ruin millions of acres. This is a continuing task, and Soil Conservation Service and all others engaged in it are heartily to be thanked.

Ketosis

EVER hear of it? Terminal symptom in diabetes? Breath smells sweetish with acetone and other ketones. Fat and carbohydrate metabolism adversely affected. Usually precedes coma and death. Cows get it too. Dr. J. C. Shaw, now of the Maryland Agricultural Expermient Station, formerly of Connecticut University, told us about it. High-pressure, high-producing cows get it, usually after feed is cut around the period of parturition. Their blood sugar goes down so low they should merge into coma, but somehow they rarely do.

There are other symptoms also, some quite like those in milk fever, for which ketosis is often mistaken, but in the former the blood calcium is down and calcium gluconate is the remedy. Best remedies for ketosis are injections of glucose and more palatable and high-quality food; best preventive is to violate the injunction to underfeed during the parturition period and, instead, to feed well. In ketosis the liver sugar, glycogen, is so exhausted that adrenalin injections scarcely bring the blood sugar up at all.

No wonder high-producing dairy cows tend to contract metabolic troubles. Man has made them over into milk manufacturing machines and that must be a biological strain on them. Their blood is all the time rapidly perfusing the mammary gland, losing tremendous quantities of proteins, fats, carbohydrates, and minerals, to make milk. Dr. Shaw has worked a great deal on this newly recognized disease, ketosis; he probably knows as much about it as anyone else. Large percentages of all high-producing herds are potential, and alarming percentages, actual victims. The cows lose appetite and weight, become introspective, recover if properly treated, but their milk production is thrown off for the entire lactation period.

Dr. Shaw is young, enthusiastic, mentally alert. He plans new experiments during which he will use a recently slaughtered cow's circulatory system to draw blood through her own severed udder so that he can find out what really goes on. He has all the earmarks of a first-class research investigator. If interested in ketosis, call or write him at College Park, Md.

German agriculture

THE EDITOR'S first cousin, who is stationed in Germany, wrote thus, September 10, regarding German farming:

> The crops are fairly good, but the outstanding missing factors over here are seed, fertilizer, and livestock for breeding to return the herds to the countryside. All through these quiet and undamaged valleys one sees two-animal carts and hay wagons, all pulled by one poor old dry cow. (This is near Bad Orb, not so far from Stuttgart—Ed.) This strikes you first of all; then you observe the use of oxen in the larger farm centers for all farm work. I have never seen but one tractor since I came to Germany.

The writer of this letter has been fairly well over Germany and, due to his assignment, has had unusual opportunities to observe. He continues:

> The gleaners are everywhere. After a farmer has cleared his field of oats, barley, other grain, or hay, the gleaners come from nowhere and later to nowhere depart. A line of a dozen or more homeless individuals of every age, sex, and build will start across the former oat field like a plague of locusts. When they are through with that field, they have garnered only a few handfuls of this or that. It all goes into an old sack and down the road they trudge to the next field. Most of them are the so-called DP or displaced persons. They have no land of their own, are sent back from the Russian zone, or are from the former Sudeten area of Czechoslovakia.

Livestock lab

THE Department's Regional Animal Disease Research (Bankhead-Jones) Laboratory at Auburn, Ala., is operated by the Bureau of Animal Industry, whose present chief, Dr. B. T. Simms, was formerly the laboratory's director. It is at present directed by A. H. Groth. It was established in 1938, largely at the request of, and to work closely in cooperation with, the agricultural experiment stations of 13 Southeastern States. Its task is to investigate a number of serious livestock diseases common to this region, many of them caused by internal parasites.

The station covers about 40 acres, has an attractive and well-equipped laboratory building, two small animal buildings, and a post-mortem building, all of brick, as well as numerous especially designed livestock houses and yards wherein animals can be carefully segregated. They can also be reared free of internal parasites when desired. A dairy herd is maintained to feed calves used in certain experiments.

One study deals with the prevention and control of Johne's disease. This insidious infection of dairy herds is caused by a germ which rather closely resembles the tubercle bacillus. The disease can rise in a herd almost before the owner is aware of its presence. It causes a variety of symptoms, including scours, weight loss, and precipitous decline in milk production.

The work of this laboratory has been much hampered by the fact that it barely got squared off to begin research in earnest when World War II began. Personnel shortages still plague it. It faces extremely difficult problems, which is natural, as its field is basic research. It is just now getting under full steam again, and a great deal can confidently be expected of it in the not too distant future.

Harry Allard

HARRY A. ALLARD, the other half of Agriculture's famous photoperiodism team, has retired. His equally famous coworker, W. W. Garner, preceded him into retirement from the Bureau of Plant Industry, Soils, and Agricultural Engineering by about a year (*USDA*, September 17, 1945, p. 2). Most noted for his part in the discovery of the influence of day length on plants, Allard performed much other valuable research, his insatiable curiosity and highly trained mind leading him ever on and on.

At the Equator days and nights are of equal length, 12 hours. Tropical plants do not bloom naturally in the North Temperate Zone because the hours of sunlight are too long; polar plants will not bloom because the days aren't long enough. Allard found that the chrysanthemum was a plant of highly regular habits. He and Garner discovered that the mums form buds as the days shorten, but could be made to bloom weeks ahead of time by artificially shortening their day—i. e., taking them into a dark house for a while each afternoon.

Meanwhile a giant strain of Maryland narrowleaf tobacco had been observed which would continue to grow vegetatively in the latitude of Washington, D. C., but would not blossom. Then certain soybean varieties all tended to bloom at the same time, though planted at different times during the summer, in Tennessee. Experiments proved that these and other plants would continue vegetative growth, unless they had exactly the right day length to make them change over to reproductive growth and produce flowers.

Commercial horticulture and agriculture have profited enormously from this experimentation which cost only about

$10,000. The same basic principle applies to field crops, fruits, vegetables, drug, and other plants. It is now possible to improve plants by hybridization under ideal light conditions, artificially maintained, to make plants flower in latitudes in which they would not normally do so.

A native of Massachusetts and a graduate of the University of North Carolina, Allard is the author of more than 200 scientific publications. These cover widely diversified studies, for he is a versatile man. He is a distinguished naturalist and an expert on insects, on mosaic disease of tobacco, and on the fibers of long-staple cotton. He will continue his studies at his home in Arlington, Va. His son Howard is a plant scientist, doing research in the Dominican Republic.

Tillage lab

THE U. S. Tillage Machinery Laboratory at Auburn, Ala., operated by the Bureau of Plant Industry, Soils, and Agricultural Engineering, is a unique research institution. It is one of the facilities of the Divisions of Agricultural Engineering, under A. W. Turner, Assistant Chief of PISAE. The engineer in charge of the laboratory is I. F. Reed. Its main work is on soil tilth.

Tilth is a sort of omnibus term meaning that general condition of a soil which renders crop production efficient and economical. At this laboratory fundamental research is done on soils and their manipulation. Ten different soils, especially characteristic of the Southeastern States, have been placed in long, outdoor, rectangular, concrete bins above which huge and powerful machines run on tracks. The soils are used over and over again. They can readily be reconditioned for reuse so as quickly to reproduce previous tests or to make new ones.

Very fine comparisons are possible under closely controlled conditions. The development and use of farm equipment can here be accelerated. Industry cooperates closely with the laboratory in equipment tests. If a new plow is devised, for instance, it can be hitched to the machine on the tracks and an exact appraisal of its value quickly secured.

On one occasion such tests served to bring a cheaper and better plow into widespread use one year earlier than could have been achieved had the plow been studied in actual farm application as was customary. This one accomplishment almost certainly paid for the establishment and operation of the tillage laboratory to date.

Traction effects, tire treads, and all other aspects of farm-equipment design and operation are investigated here. Industry immediately incorporates the results of successful tests in new and better machines. During the war the laboratory designed new methods and new machines to handle oil crops. Nowhere else does such an institution as this exist. It is unique in type and in value.

Among other research being carried on by the engineering divisions are projects in: Housing of livestock and rural people; storage of grain; equipment for controlling insect pests and diseases; storage and transportation of perishable farm products, including refrigerator-car design; production and curing of field crops such as tobacco and hay; mechanical methods for nematode control; storage of fruits and vegetables on farms; complete or partial processing of crops on farms or in rural industries; application of electric power to farm problems; fertilizer placement; *and* soil tilth.

Dr. Mott

THE Saskatchewan News, a weekly information bulletin issued by the Bureau of Publications at Regina, for September 9, pictures Dr. F. D. Mott, former Chief Medical Officer of Farm Security Administration, on the front page. Dr. Mott is now chairman of the provincial Health Services Planning Commission, his arrival having recently been announced by Premier T. C. Douglas.

Dr. Mott, a graduate of McGill Medical College in Montreal, found 4.8 hospital beds per 1,000 of population in the Province of Saskatchewan at the end of 1946, when all States in the United States with over 70 percent rural population had only an average of 2.2 hospital beds per thousand. He thought the provincial rural set-up—and the province is almost all rural—amazingly good in this respect.

Dr. Mott stated, "The eyes of medical groups, Government officials, and the informed public in the U. S. are increasingly on developments in the organization of and payments for health services in Saskatchewan." There public health service is also well extended, while 40 percent of United States counties still lack full-time health services. Some of you might like to write Dr. Mott and keep in touch with rural health progress up where he is.

ACE

THE ANNUAL meeting of the American Association of Agricultural College Editors was held in Auburn, Ala., September 18–20, with Louis Brackeen as host editor. Over 150 delegates were registered from 38 States, Canada, Puerto Rico, Territory of Hawaii, and Peru. The meetings were enthusiastic, the ladies, including wives of many delegates, were in large attendance, and Alabama hospitality shone at its best. There were increased attendance by experiment station editors and increased attention directed to station research. Lisle Longsdorf, of Kansas, presided.

Many of the addresses were unusually good. The following deserve special mention: Extension Faces a New Era, by Director of Extension M. L. Wilson; The Later-Day Janus (the extension editor facing five ways), by Lester A. Schlup, Director of Extension Information; Let's Write About People, by J. M. Eleazer, of Clemson; What's New in Visual Equipment, by Glenn Stewart, of Auburn; Radio Techniques That Pay Off, by Jimmie Wilson, Program Director of WAPI at Birmingham; How State and Federal Workers Can Aid Each Other With Radio Broadcasts, by Ken Gapen, Office of Information; and We All Work Together, by Ruth Van Deman, of Bureau of Human Nutrition and Home Economics.

Fortunately Reuben Brigham was on hand to provide his customary inspirational punch. The banquet was provided by the Alabama extension service and was stupendous and incredible, real steak being served. The principal address at the banquet was made by P. O. Davis, former extension editor, now Alabama director of extension, in the presence of President L. N. Duncan, of Alabama Polytechnic Institute, himself a former director of extension. Both the USDA tillage machinery and animal-disease research laboratories were visited, the respective directors giving excellent accounts of their objectives and accomplishments.

The new president of the ACE is C. R. Elder, of Iowa; vice president, Tom Gildersleeve, of North Dakota; secretary, Laura Lane, of Texas. Next year's meeting will be held in Minnesota.

Allium cepa: The Department has recently urged Americans to eat more onions, which is a fine thing nutritionally, however it may rate socially. A properly made onion stew has power and authority beyond most stews, provided the flavor of the onion is persuasively dominant. This Asiatic plant with its pungent and aromatic edible bulb can scarcely be too highly recommended, provided your friends and relatives also partake when you do.

Brief but important

Farmers and Price Control: A fact sheet by this title has been issued by USDA and OPA. It tells how new legislation affects farm commodities and how inflation imperils farm markets, and says the farmer as a consumer needs price protection. Get it from Distribution Control (phone 3511).

Scrap iron and steel needed: A Steel Scrap Collection Campaign is on, and the Production and Marketing Administration has issued a fact sheet on it (available from Distribution Control, phone 3511). Scrap metal is still vitally needed, and Government, industry, States, cities, and citizens are asked to help in this important campaign.

Message from Secretary of Navy Forrestal: "In September 1945 the Japanese surrendered. I regard it as significant that they surrendered during the harvest month, for, no less than the guns and the spirit of our men and women, it was the food which came from the great farming areas of this country that brought us to victory. The Navy still remembers the heroic work of the farmers, who, although it is more than a year since the fighting ended, have not lessened their efforts to feed the Nation and the starving peoples of the world. On Navy Day, October 27, 1946, I wish to thank the farmers of America."

Population statistics: In September 16 *USDA* we mistakenly said that the Department had "almost" six employees in the field to one in Washington. Actually there were and are more than six to one, and this is an excellent thing for Washington employees to keep in mind at all times. The field heavily outnumbers them. Also, due in the main to greatly improved distribution techniques and more effective circulation, editions of *USDA* now run a little over 30,000.

Eric Englund leaves: Dr. Englund, economist in the Office of Foreign Agricultural Relations, has left to become United States agricultural attaché to Finland and Sweden. He is a native of Sweden, and was formerly assistant chief of the Bureau of Agricultural Economics.

Poultry scientists honored: The Poultry Science Association has awarded to three research workers of the Bureau of Animal Industry it prize for an outstanding paper on poultry research published by its membership during the year preceding its annual summer meeting. The scientists are Joseph P. Quinn, Albert B. Godfrey, and Clement D. Gordon, all of the Animal Husbandry Division. The paper, entitled "Breeding for Egg-Shell Quality as Indicated by Egg-Weight Loss," appeared in September 1945 Poultry Science. The data and conclusions are fundamental contributions to improvement in the quality of eggs. Selection of the article carried an award of $100.

Secretary's Memorandum No. 1174, September 12, is concerned especially with functions of the Offices of Budget and Finance and of Personnel in the preparation and audit of pay rolls, and certain related matters. It was issued in accord with recommendations endorsed at the Personnel Officers' Meeting in Milwaukee, December 1945.

Pay-roll savings plan: Acting Secretary Brannan issued, on September 13, a memorandum to heads of administrations, bureaus, and offices, designed to give punch to the pay-roll savings plan for the purchase of savings bonds. Apply to Secretary's Records Section, extension 3320, for copies.

A Review of Newcastle Disease: This 6-page processed item issued August 30 by the Pathological Division of the Bureau of Animal Industry, to which one should apply for copies (phone 5601), discusses the etiolgy, symptoms, diagnosis, and control of Newcastle disease, and also carries a list of references.

Soap scouting: Already scouting around the neighborhood for soap or soap chips is a necessary task for many busy housewives. This adds a point to the continued necessity for saving that fat and taking it to your butcher. *An adequate supply of fats and oils is as yet nowhere in sight.* We must continue to use and reuse cooking fats and oils until no longer edible, and then turn in the residue for salvage. Using over again and saving fat are equivalent to production.

Soil conservation districts: Soil conservation districts now cover 900 million acres. The first to be organized was the Brown Creek District, in North Carolina, established August 4, 1937. There are now 1,700 of the districts, and new ones are being established at a rate of about 25 monthly. Only one district has gone out of business. That one, in the State of Washington, succumbed to the necessity for production of "materials having to do with the development of atomic energy"—indirectly bombed out, that is. Hugh Bennett says, "The soil conservation district is the most democratic organization of its kind ever devised."

Dr. W. E. White: Dr. White retired from veterinary practice in Tifton, Ga., on September 20. He came to Georgia in 1914 as an employee of the Bureau of Animal Industry to work on tick eradication, and changed over to hog cholera in 1917, later transferring to Columbia, S. C., then leaving BAI in 1919 to enter private practice. He was Georgia's chief veterinarian from 1932–34, then accepted a position with the Bureau of Entomology and Plant Quarantine in Alabama, which he held until 1935 when he returned to private practice in Tifton.

New publications: Your attention is called to a new Miscellaneous Publication (No. 606) entitled "DDT and Other Insecticides and Repellents Developed for the Armed Forces," prepared in the Orlando Laboratory of Bureau of Entomology and Plant Quarantine and issued in an attractive blue cover; Cold Storage for Apples and Pears, by W. V. Hukill and Edwin Smith, of Bureau of Plant Industry, Soils, and Agricultural Engineering (Circ. No. 740); and a Bureau of Agricultural Economics study, by Philip L. Breakiron, transportation economist, on Reduction of Loss and Damage in Rail Transportation of Fresh Fruits and Vegetables by Improved Loading Methods (processed).

The Graduate School has appointed a Beltsville Graduate School Committee, composed of representatives of various agencies carrying on work at the research center, to consider and foster the educational needs and interests of Beltsville employees. R. E. Hodgson, of Bureau of Dairy Industry, is chairman.

Alabama FSA: Alabama reports that high farm prices are hitting Farm Security's loans to veterans, something certainly not unknown elsewhere. FSA has been able to make relatively few farm-purchase loans to Alabama veterans because of the difficulty of finding family-sized farms that can be bought at a price in line with their value. Records show that 20 percent of all Alabama farm operators have received FSA operating loans since 1935. Through June 30, nearly 80 percent on all short-term loans had been repaid. Those in the farm-ownership loan program had paid 32 percent more than was due on their 40-year loans and 200 had completely paid off ahead of schedule.

Editor of USDA: It is an unfortunate fact that the editor of *USDA,* the Department house organ, is often addressed by mail or referred to in the press as "the editor of the U. S. Department of Agriculture." The distinction between *USDA* and USDA is lost on some Department employees, who so address him; it is wholly and irrevocably lost on outsiders, and little can be done about it. But do your best to remember and spread the fact that editing *USDA* is the sole purely editorial responsibility of the so-called "editor of USDA," but that the Department has in it many excellent and highly qualified editors who really *are* editors and no mistake.

Arthur C. Dillman retires: A leading expert on improvement of seed flax, the source of linseed oil, Mr. Dillman, of the Bureau of Plant Industry, Soils, and Agricultural Engineering, retired September 26, and is doing work at Minneapolis with the Flax Development Committee of the Linseed Industry. He received a B. S. from South Dakota State College and an M. S. from the University of Maryland, and came to the Department in 1908. Besides his research on flax, Mr. Dillman is well known for valuable work in breeding drought-resistant forage crops.

Laura Lane, extension editor, Texas, has a mighty interesting and informative discussion of the South Plains Cooperative Hospital at Amherst, Tex., in October Farm Journal. She calls it "$25 a Year Pays the Doctor," and shows how such hospitals, now getting popular all over the could-be four States of Texas, solve rural medical problems en masse.

Better Food (formerly American Cookery) for September contains an article telling how the Eastern Regional Research Laboratory made apple essence from the apple. It is entitled "Extracting Flavor from the Apple" and comes in the section called "Flavor" of the rejuvenated magazine. The Library gets the periodical. See also the discussion of A New School Lunch Program and note the generally improved content.

Two informative speeches are: Farm Prices and Agricultural Welfare, by Secretary Anderson, September 24—ask for 2093; and Rural Electrification Administrator Wickard's Penny Wise and Pound Foolish Economics address in Vermont a day earlier—ask for 2043.

The Process of Persuasion: Since so many of us are required to use the art of persuasion effectually to perform our functions, this book, by Clyde R. Miller, of Columbia University (Crown Publishers, N. Y.), should prove of interest. The discussion is lively, brief, informative.

Nation's farm plant value: The Balance Sheet of Agriculture, 1946, a Bureau of Agricultural Economics study, indicates that American agriculture was worth 101.5 billion dollars at the beginning of 1946, a gain of 12 percent over one year before that and of 90 percent since January 1, 1940. For more details get 2119 from Press Service; for more still, see the study itself.

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USDA

FOR NOVEMBER 11, 1946

Outlook

A NOTE of subdued optimism pervaded the twenty-fourth Annual Outlook Conference held October 7 to 11. Whereas Bureau of Agricultural Economics, Bureau of Human Nutrition and Home Economics, and Extension Service usually actively collaborate in making the conference a success, a couple of hundred State representatives of Production and Marketing Administration and many State experiment-station staff members also participated this time. Secretary Anderson's opening talk, The First Years of Peace, was far from a perfunctory address and merits reading. During it he interpolated some very complimentary remarks about the USDA and its employees, particularly those in the field whom he praised very highly.

Without making invidious distinctions we think you may be especially interested also in Marriner S. Eccles' (Chairman, Board of Governors, Federal Reserve System) much publicized address on The Peacetime Industrial Outlook; in the discussion of International Finance, by Eugene Meyer, President of the International Bank for Reconstruction and Development; and in the talk on the World Situation for Food and Agriculture by D. A. FitzGerald, Secretary-General of the International Emergency Food Council.

Other talks you might want to see are those on National Income and the General Price Level, by M. Joseph Meehan, of the Department of Commerce; Agricultural Outlook, by O. C. Stine, BAE; Agriculture's Balance Sheet, by Norman J. Wall, BAE; Developments Affecting Market Outlets for Farm Products, by F. L. Thomsen, BAE; New Uses for Farm Products, by Chief L. B. Howard, of the Bureau of Agricultural and Industrial Chemistry; The World Nutrition Situation, by Chief Hazel K. Stiebeling of HNHE; and the discussion of Department nutrition programs—a review of its action programs on this front—by Robert H. Shields, of Production and Marketing Administration, and by Mary A. Rokahr, of EXT.

Unfortunately the informative and entertaining remarks of Under Secretary Dodd on the inspection tour of some 18 European countries, which he made before attending the Copenhagen conference of FAO, were extemporaneous and copies are not available. But copies of the other talks may be procured from BAE's Economic Information Division (Ext. 4407). As a whole, the outlookers considered the International, Domestic, and Agricultural Situations; Broadening the Market for Farm Products; Outlook for Nutrition; Goals, Price Supports, and the Outlook; Commodities, each in detail; Rural Family Living Outlook; and Getting the Outlook to Farm People.

Another pioneer

ON THE evening of October 4 there died in New York City, of leukemia, Gifford Pinchot, twice Governor of Pennsylvania, and a pioneer exponent of forestry and forest conservation. His name catalogues with those of other outstanding bureau chiefs of the old days—D. E. Salmon, B. T. Galloway, Milton Whitney, Harvey W. Wiley, and L. O. Howard—of whom only the last now survives. Mr. Pinchot was a close friend of Theodore Roosevelt and a prominent national figure for half a century.

Born in Simsbury, Conn., August 11, 1865, he took his A. B. at Yale, in 1889, then studied forestry in France, Germany, Switzerland, and Austria. He began the first systematic forestry work in the United States at Biltmore, N. C., in 1892, and became a member of the National Forest Commission in 1894. In 1898 he was named chief of the then Division of Forestry by President McKinley. This became a bureau in 1901, and the Forest Service in 1905. Pinchot remained chief until 1910, when he left the Government service as a result of a controversy with Secretary of the Interior Ballinger over certain Alaskan conservation questions.

When Pinchot entered the Forestry Division, July 1, 1898, "Tama Jim" Wilson was Secretary of Agriculture. Pinchot had made out the questions for his own examination, because there was no one then in the Government service competent to do this job, but the President covered him into Civil Service before the questions were used. The Division did not then control a single acre of forests, but it had in it all the foresters in the Government service, and Pinchot was one-half of the two of them. The National Forest Reserves were then in charge of the General Land Office, which had no forester at all!

When Pinchot joined up, the Division had 11 employees and an annual appropriation of $28,500. When Forest Service celebrated its fortieth anniversary and Gifford Pinchot spoke, its annual appropriation was nearly 60 million dollars. One of its smaller national forests today requires more employees than did the Division when Pinchot took over. The Division was then housed in two rooms in the attic of the old red brick building. Pinchot's office was in one of them, about the size of a hall bedroom; the remaining ten members of the force shared the other room.

If you want to know what Forest Service is today, get Miscellaneous Publications 290, The Work of the U. S. Forest Service, and read up. Whatever else he became—and he became a great national figure—Pinchot remained at heart a forester and a conservationist all his life. He rendered distinguished service as such in the Second World War. His heritage is a mighty institution which performs a complicated, highly responsible, and extremely useful public service, fully grounded in scientific principles, with thousands of conscientious, well-trained employees animated by a zeal which not even low remuneration can extinguish.

4,000-acre lab

THE Coweeta Experimental Forest is a curiously appropriate 4,000 acres within the Nantahala National Forest, in southern North Carolina, just across the Georgia line. It is a true laboratory in the woods. Marvin D. Hoover is in charge, under the over-all supervision of Dr. C. R. Hursh, of the Southeastern Forest Experiment Station at Asheville, N. C.

It may sound odd to you that 4,000 acres of woodland could be a laboratory. But seeing is believing. Here, in the form of a huge triangular leaf from some

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gigantic tree, are 28 separate and distinct watersheds suitable for study of the water cycle, just as if nature had taken great pains to fashion them for the purpose. That means 28 mountain streams, forming the veins of the leaf, each trickling down its own watershed toward the larger outlet creek.

Work began here in 1933–34. The first thing was to ascertain how nature's own water system ticked, keeping all streams crystal clear and regulating run-off. So the acreage was peppered with ingenious instruments which enabled rainfall, streamflow, and the underground water table to record themselves. In this, as otherwise, the experiment is unique, the objects of the experiment penning their own records.

In 5 or 6 years the natural behavior in all watersheds was determined. Rainfall varied from 70 to 100 inches annually in different parts of the acreage, the highest precipitation anywhere in interior United States. There were 50 significant storms a year and 65 strategically placed rain gages recorded them. Other instruments noted the rises and falls of the streams, while numerous recording wells chalked up the ground water table levels.

Then only it became possible to study the effects of man-made changes in individual watersheds upon the quality and yield of the water and on the water table. Incidentally, the ground water level in two nearby wells can vary by 100 feet. Another 5 years was required to investigate fully the effects of the practices under test. The information accumulated is of untold value to any city or town with a water-supply system.

All streams naturally ran more vigorously in the morning, less so in the afternoon, and seemed to rest at night for the morning flow. The customary type of logging in the region—including horse skidding and carelessly made access roads, in lieu of known measures to conserve the water supply—lowered both yield and quality, and the stream clouded up with silt. Hillbilly land management—clearing, planting, grazing heavily—clouds the water and makes streamflow peaks terrific after storms, the instrument needle going up and down in the same line. But it takes 2 or 3 years for the evil effects of this to show up.

Cutting all trees and shrubs, and letting them lie, alters neither the forest soil structure nor the quality of water, but yield rises 60 percent at first, slackening again as new plant growth is established. A mere 12 percent cut of riparian vegetation—all having roots in the stream water table—increases waterflow 20 percent the first year. Burning the forest, if done under carefully prescribed conditions, will not adversely affect waterflow. Then more suitable trees, shrubs, herbs, and grasses may be planted on the watersheds than nature had there originally, thus improving water yield and maintaining quality, and the effects of mechanical devices in streams can be studied.

Ultimately information of the highest value to urban water supply systems everywhere will result. The records of this unique and fascinating experiment are stored in a curious fireproof record vault. Nothing has been overlooked.

In Auburn, Ala.

OPPORTUNITY was afforded us recently to look in on Department employees in Auburn. We found Farm Security Administration, now the Farmers Home Administration, housed on the second floor of a nice little two-story office building downtown. We talked with Assistant State Supervisor Charles R. Lee. The case load is heavy in Alabama; there are supervisors and also home-management specialists in nearly every county.

Production and Marketing Administration has about 60 employees in a building on the campus of Alabama Polytechnic Institute. They said that the State councils work well in unifying the objectives of agencies and acquainting each with the functions of others. Soil Conservation Service has about 25 employees also in a building on the campus. *USDA* reaches all these field stations in sufficient quantity, is carefully read, and apparently pleases the customers.

From BAI

FOR CARRYING out an intensive investigation, culminating in the observation that treatment with 1-gram doses of lead arsenate would free lambs of tapeworms and prevent the serious losses which he found these worms were causing in western South Dakota flocks, Dr. R. T. Habermann, a veterinarian of the Bureau of Animal Industry, has been commended by officials of the Bureau and awarded a meritorious promotion. Lead arsenate is a common and fairly cheap chemical that farmers and gardeners have long used as an insecticide, and was selected for trial on account of a reported action against tapeworms.

The treatment for lambs is remarkably effective and is well tolerated by the animals. It enables sheepmen to prevent, almost entirely, losses from scouring caused by the broad tapeworm.

While writing about BAI the fact should be mentioned that its former chief, Dr. John R. Mohler, was recently presented with the American Veterinary Medical Association's award for his contributions, during 46 years of service, to the health of our animal population. Public servants like Dr. Mohler have wrought great changes, which almost within his lifetime advanced farming from a somewhat primitive occupation to a field of activity in which science plays a dominant part. Dr. Mohler is enjoying improved health since his retirement, though answering his rather voluminous correspondence in longhand proves a little formidable at times.

Physically handicapped

PRESIDENT TRUMAN not long ago called attention to the remarkable manner in which the late President Roosevelt courageously surmounted his physical handicap. As a result of action by Congress and the President a program has been launched to promote the employment of physically handicapped persons. The USDA is to assist in the program and there was a National Employ the Handicapped Week beginning October 6.

Full use of all manpower sources is vital. Surveys have shown that disabled workers stay on the job, have fewer accidents than others, do not increase workmen's compensation insurance rates, and often produce much better than normal persons. *They also expect no special favors.* Industry has found it good business to hire disabled workers, the number so employed having skyrocketed over a thousand percent between 1940 and 1945, totalling 300,000 persons in the latter year.

Wartime experience proved that practically every job can be performed by some handicapped worker. The great majority are handicapped only with respect to doing particular jobs. Agriculture and food processing can use amputees, the deaf, the blind, epileptics, or those with arrested tuberculosis. For materials on this subject phone or write Distribution Control, Office of Information (Ext. 3511), or Henry Shepherd, Office of Personnel (Ext. 5967), or William P. MacCahill, Retraining and Employment Administration, *Department of Labor* (Ext. 755).

Brief but important

News of Food and Agriculture Organization: The FAO conference, held September 2–13 in Copenhagen, created a preparatory commission for the World Food Board to make recommendations for an intergovernmental program for preventing shortages and surpluses of food and other agricultural products. The commission, consisting of representatives of 16 FAO member nations, met in Washington October 28. On October 8 Sir John Boyd Orr, Director General of FAO, announced the appointment of the Right Honorable S. M. Bruce, of Australia, as chairman of the commission. At the conference in Denmark L. A. Wheeler, Director of Office of Foreign Agricultural Relations, was elected vice chairman of the 15-man Executive Committee of FAO. Reports and plans of the conference are outlined in FAO Information Service Bulletin No. 6, The Copenhagen Conference. It's available from Distribution Control (phone 3511).

Excellent speeches on forestry were delivered October 9, before the American Forest Congress, convened in Washington by the American Forestry Association, by both Secretary Anderson and Lyle F. Watts, Chief of Forest Service. We suggest you get and read them. Write or phone (6114) Press Service for 2212 and 2227, respectively.

Department Responsibilities under the Strategic and Critical Materials Stock Piling Act (Public Law 520, 79th Cong., approved July 23) are outlined in Secretary's Memorandum 1175, October 4.

Recommended reading: If the distinction between press agent, publicity man, information man, public relations man, public relations counsel, and propagandist eludes you, read Stephen E. Fitzgerald's discussion of public relations in Summer 1946 Public Opinion Quarterly. *If* you want to know more facts about British farming, read an article called "New Domesday Book" in the Economist (London) of September 7, about a recent farm survey of England, Scotland, and Wales, which makes it easier to view British agriculture in outline than has been possible since William the Conquerer's classic. *If* you want a new and rather startling slant on certain farm problems, read Samuel Brody's (University of Missouri) Growth and Aging Problems in Agriculture in Science for October 4.

Dr. Charlotte Elliott: This distinguished woman plant pathologist retired recently, having entered the old Bureau of Plant Industry in 1918. For some time she worked in association with Dr. Erwin F. Smith, who may rightly be regarded as the founder of the science of phytopathology. In cooperation with Department entomologists, she definitely worked out the overwintering habits of the bacterial wilt organism. She is the author of an internationally known and used book, Manual of Bacterial Plant Pathogenes. A native of Berlin, Wis., with degrees from Leland Stanford and Wisconsin, she has in recent years worked largely on fungus and bacterial diseases of corn and sorghum.

The farmer's wife: Prof. George A. Pond, of agricultural economics, University of Minnesota, has undertaken the hazardous task of estimating the value of the farmer's wife. He found that farmers whose wives cooperated in running their farms averaged $2,760 more annual income than did those who ran their farm enterprises on their own. A farmer would need $69,000 invested at 4 percent to bring him $2,760 annually; ergo, his wife is of that monetary value to him. The New York Times, after cataloging the farm wife's other duties, in addition to acting as adviser on the operation of the farm enterprise, appraises the estimate as too low and raises it to $100,000. What would be your figure?

Now here's something! Hazel M. Fletcher and Bess V. Morrison, of Bureau of Human Nutrition and Home Economics, have exploded the old fallacy that heavy clothing keeps out heat as well as cold. That's the last time we wear our overcoat and wool rompers in a Washington July too, if you ask us. Seriously this is worth-while laboratory work. The heat transmission of fabrics is much more complex than was thought. Thick fabrics, especially wool, keep body heat *in* much better than do thin materials, but texture is also a factor. Coarse-textured, fuzzy cloth *feels* warmer than smooth fabric of the same thickness; it makes less contact with the skin and incloses a layer of air, an excellent insulator. Flat fabrics make the most comforable clothing for hot humid climates, which we shall certainly also remember next summer.

Some people have moods: The best thing you can do is to respect them. They are often very nice people, but they find it simply impossible to shake off their moodiness at will and to respond cheerfully to your beaming good nature. The thing to do is to accept them as they are. Even well-meant efforts to blast them out of their apparent melancholy may ruin a friendship or disturb pleasant relationships with a colleague. Remember that these people also have to put up with your grimly determined cheerfulness. Maybe you often pain them as much as they irk you.

The scientist stands up: Dr. David L. Thompson, of McGill University, recently remarked that our civilization tends to adulate and respect the man who does his working sitting down—we respect the chairman, speak of the professor's chair, a seat in Congress, the archbishop's see, the judge's bench, and so on. But most kinds of research are done standing up, or else while squirming on a stool. A man can't do research from a desk chair by ordering technicians around. Thus he will never find anything he doesn't expect to find. For demure and well-mannered nature reveals her secrets only as if by accident and without previous announcement. It is not necessarily a promotion when a first-rate worker is taken from the lab to become a second-rate executive!

Soybeans: The Nutrition Advisory Committee of the Indian Research Fund Association has made a reappraisal of the value of soybeans in the nutrition of rats and human beings, as compared with other "pulses," as the British say. They claim to have found in the soybean no special advantages over other peas and beans available to East Indians. Despite their impressive content of fats, minerals, vitamins, and proteins, the soybeans just didn't add up biologically. See the Committee's report No. 13, issued 1945, and reference thereto in The Lancet, August 17, 1946, page 245.

All participate: All States and Territories, and the District of Columbia, now participate in the School Lunch Program. At least 8 million school children will get school lunches during the year; these children are attending 46,000 public and nonprofit private schools. Under the new act funds are regularly allotted annually, so the program is no longer on a year-to-year basis, but can now be given effective longtime planning. States match Federal funds. No Nation can be healthier than its children or more prosperous than its farmers. "In the National School Lunch Act the Congress has contributed immeasurably both to the welfare of our farmers and the health of our children," says President Truman.

Farm Cost Situation: This is a new Bureau of Agricultural Economics situation report. It will appear twice a year, the first issue being dated September 1946. After giving the general situation, it has sections covering farm labor; farm power and machinery; feeds, seeds, fertilizer; lumber, containers, and supplies; insecticides and fungicides; land values and rentals; interest, taxes, and insurance; and changes in farm production costs. Get it from Economic Information, BAE (phone 4407).

Rubber: In the old, old days, as Joe Cook had it, we used to say: "Rubber? Stretch it. I thought it was the real thing." Well, Department explorers have come upon *Hevea rigidifolia*—the small one with the stiff leaves—a poor relation of the rubber tree, *Hevea brasiliensis*, and it is the real thing as far as rubber is concerned. It all happened in the tropical forests of Brazil where Richard Spruce, British botanist, found the small hevea a century ago. But then it got mislaid. It occurs sparsely, grows only on dry granitic hills and sandstone mesas, does not yield much commercial rubber, but is invaluable for making crosses in long-range breeding programs, as it is both disease and drought resistant. Together USDA botanists and Brazilian jungle explorers rediscovered *H. rigidifolia*.

Milwaukee has a very active USDA *Club:* On November 7 it held a Hobby Show at which employees and members of their families were asked to exhibit. Last year there were 36 exhibitions and 180 people at such a show; 100 and 300, respectively, were anticipated this year. Maybe others will take to this idea.

Anybody here from Dahlonega? During a recent field trip in Georgia, along with Len Tracy, information specialist, Forest Service, Region 8, and C. K. Spaulding, Supervisor of Chattahoochee National Forest, we found ourselves lunching at this village where gold was first discovered in Georgia in 1828. John C. Calhoun at one time owned the principal mine. Here in 1837 the United States established a branch of the mint. This branch minted more than 6 million dollars worth of gold coins from nearby ore before the Federal Government somehow lost hold on the place during some mysterious disturbance in 1861. In 1849 Dr. M. F. Stephenson, local assayer of the mine, stood on the courthouse steps and sought to dissuade Georgians from joining the California gold rush. It was this speech that gave rise to the saying: Thar's gold in them thar hills. That's all we know about Dahlonega (accent on the *lon*) for that's all the signboards said.

Forest Service for the first time has established a Division of State and Private Forestry in its Region 5, California. William S. Swingler, recently returned former head of the Japanese forestry organization on General MacArthur's staff, is its first chief. He is a native Pennsylvanian and a graduate, in 1921, of that State's forestry school. He joined FS in 1936, having previously been in Soil Conservation Service. His division's job will be to encourage private owners to husband old and plant new forests, for 5 million of California's 13.5 million acres of commercial forest land have already been logged or burned.

We always like it, when people say, as they so often do, that *USDA* appreciably aids in building esprit de corps and gives employees in each individual agency just about what they should know about the work of other agencies in order to make them feel parts of a great whole, the Department of Agriculture. That is *USDA's* fundamental objective: To build morale by disseminating pertinent information.

Three years to wait: World output of fats and oils will probably not attain the 1935–39 level for three more years. Political unrest delays restoration of normal production of soybeans in Manchuria and of palm oil in Sumatra. Antarctic whale oil production has been limited to half the 1938 level by international agreement to conserve whales. But there are some favorable factors, like the greatly increased production of lard and soybeans in the United States. Yet the world's import requirements in 1946 are about double the supply of fats and oils for export. See also September 30 Foreign Crops and Markets, available from Office of Foreign Agricultural Relations.

Farmers Home Administration took the place of the Farm Security Administration and Emergency Crop and Feed Loan Division of the Farm Credit Administration on November 1. The law allows until July 1, 1947, for transfer of functions of the FSA regional offices to the FHA State offices. The four FSA area finance offices at Indianapolis, Montgomery, Dallas, and Denver will continue their functions under FHA.

Says New Mexico A. & M. College: "It's generally known that the highest quality spinning cotton in the world is a product of the experiment station at State College, but it's not a generally known fact that strains now under test and observation are better spinning cottons than any heretofore produced." Authority? J. T. Stovall, writing on field days, October 13–16, at New Mexico A. & M. The Flying Farmers came in the thirteenth, the fourteenth was Ranch Day, the fifteenth was the first Farmers Day since before the war.

The Research and Marketing Act of 1946 is so written as to authorize funds for the printing and disseminating of the results of research, as well as for its performance. Section 9 (a), under Title I, makes this explicit. Section 203, under Title II, authorizes the Secretary "to conduct and cooperate in consumer education for the more effective utilization and greater consumption of agricultural products" (par. f) provided none of the money is used to pay for newspaper, periodical, or radio advertising for these purposes; and "to collect and disseminate marketing information . . . for the purpose of anticipating and meeting consumer requirements," etc. (par. g).

Meat board: The War Meat Board, established June 1943 to utilize the advice and assistance of livestock and meat-industry people in connection with Government meat-procurement and distribution problems, became the USDA Meat Board in October 1945. Its discontinuance was announced September 30 last, following sharp curtailment of Government procurement functions and other activities affecting meat. H. E. Reed, Director of Production and Marketing Administration's Livestock Branch, had been chairman.

Bennett on soil conservation: Hugh H. Bennett, Chief of Soil Conservation Service, delivered an informative and thought-provoking talk at Princeton, N. J., October 2. You should read it. He discussed The Development of Natural Resources: The Coming Technological Revolution of the Land. Ask Press Service for 2128 (Ext. 6114) or write In.

Surplus land sales: Farm Credit Administration announced September 30 that the Government had so far recovered approximately 69 percent of the reported cost of surplus agricultural and forest land, chiefly used for military training camps and munition-plant sites. Former owners had recovered 63 percent of the acreage sold thus far. See details in 2154; write or phone (Ext. 6114) Press Service.

Training and safety conference: Vocational education leaders and job-training and safety instructors from 18 States attended a job-training and safety conference sponsored by Rural Electrification Administration, October 1 to 4. Ways and means were discussed of expanding REA's Job Training and Safety Program, in cooperation with Veterans Administration and Office of Education. The program began 6 years ago to meet the need for skilled linemen created by great expansion in rural electrification. Under the program, veteran and nonveteran trainees receive on-the-job instruction by working in power systems of REA-financed co-ops.

The Salt Problem in Irrigation Agriculture: This is another in Agricultural Research Administration's series of publications on the work and accomplishments of its regional laboratories established under the Bankhead-Jones Act of 1935. It (Miscellaneous Publication 607) concerns the Regional Salinity Laboratory, at Riverside, Calif.

Cotton export program: Appointment of Roger L. Dixon, of Dallas, vice president of the American Cotton Shippers Association and a former president of the Dallas Cotton Exchange, was announced October 1, to assist in the Government's cotton export and textile production program in Germany. The appointment was made at the request of Gen. Lucius D. Clay to the Department for an experienced person to act in an advisory capacity to the Berlin staff on the handling of cotton. Arrangements were made May 1 to ship Government-controlled cotton to the U. S. Zone of Occupation, payment to be received from the sale of textiles.

Kudzu: Down in Alabama, Georgia, and North Carolina we recently saw kudzu on the loose. Originally set in to stabilize embankments and for other useful purposes, it had sometime gotten away and was growing all over quite large trees and smothering them. We pictured entire communities forever submerged in kudzu. Fortunately, such offending vines usually are at field edges and can be controlled by digging out the isolated crowns or even by heavy grazing. Fact remains that kudzu is one of the best erosion-controlling crops for the South yet discovered.

Did you know that the area around Gainesville, Ga. is among the two or three largest broiler districts in the United States, doing business to an annual value of 40 million dollars?

Vandals in recreation areas make it a great deal more expensive for Forest Service to keep these in good condition than would otherwise be the case. In fact some national forest employees impatiently say, "People act like pigs, or worse!" If visitors to forest recreation areas only strove to pick up the mess they make, it would save a lot of money for other purposes that now has to go for employees hired to pick up for them. Deliberate and unforgivable vandalism also occurs.

Agencies are usually born young and vigorous: Some retain high esprit de corps, dedication to the public good, and zealous performance of duty for many years. But others succumb to bureaucratic rigor mortis and settle ingloriously into sordid, depressing routine. The manner in which *you* function is a most important factor in determining which path your agency will take.

Newcastle disease: A statement was issued September 13 by the National Committee on Newcastle disease, setting forth 19 specific recommendations for control of the ailment in the United States. (See *USDA* June 10, p. 3.) Ask Press Service (phone 6114) for 2021 if interested.

Digestibility of lard: While it is popularly thought that lard and other pork fats are less digestible than beef fat or hydrogenated vegetable oils, work by R. Hoagland and G. G. Snider (Tech. Bull. 821) indicated that lard is somewhat more digestible than either vegetable shortenings or blended vegetable and animal shortenings. Work published in Science for September 13 (p. 255) indicates that lard plasticized by the addition of hydrogenated lard and then deodorized to an entirely bland product is quite as digestible as all-hydrogenated vegetable shortenings.

Forest Tree Breeding and Genetics: The Imperial Bureau of Plant Breeding and Genetics (U. K.) has published a 79-page bulletin on this subject (Imperial Agricultural Bureaux Joint Publication No. 8, 1945), documented with over 600 titles, which appears to be very complete.

Research Achievement Sheet No. 63 tells about the fundamental and also practical research the Bureau of Human Nutrition and Home Economics conducted on the improved sizing of children's clothing. Adoption of the findings by industry made this work extremely valuable. To get the sheet, write or phone Dallas Burch, Agricultural Research Administration, Ext. 3780.

Sweetpotatoes for feed: This is the title of an editorial in the Alabama Journal for September 19. It is a subject in which the Department also long has had interest. Alabama produces only about 15 bushels of corn to the acre on the average. It needs other feed crops. Georgia, with a still lower average corn production, is in the same situation. But sweetpotatoes make an excellent alternative carbohydrate feed which can easily become of primary importance. The Alabama Agricultural Experiment Station reports that steers fed sweetpotato meal and vine silage averaged double the weight gains of those on a standard corn ration. Wide-spread installation of dehydrating plants is in the offing. These can serve local farmers by providing a modern scientific means of lowering feed costs and fostering livestock production.

Farm electric research: Truman E. Hienton, formerly of Purdue, heads the Division of Farm Electrification in the Bureau of Plant Industry, Soils, and Agricultural Engineering, Beltsville, Md. The Division's research seeks additional labor-saving and income-producing uses of electricity, hence it keys in closely with programs of the Rural Electrification Administration. The possibilities are broad and include methods of curing hay and bright-leaf tobacco, refrigerated storage for farm products, individual farm milk pasteurization, the use of infrared radiation for temporary local heating and veterinary therapy, lamps to kill bacteria, and the elimination of hard labor. The reasearch program is now expanding after sharp wartime curtailment.

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FOR NOVEMBER 25, 1946

Negro college heads meet

ASSISTANT SECRETARY Charles F. Brannan gave an informal talk on the Research and Marketing Act of 1946 before the Annual Conference of Presidents of Negro Land-Grant Colleges, which met at the Department October 22–24.

The colored land-grant college heads, who are anxious to have agricultural experiment and research facilities made available to their students and faculties, asked the Assistant Secretary to discuss the new act for them and indicate how their institutions may participate in its operation. Up to now these colleges have not been provided with facilities for conducting organized agricultural research. Their total participation in the operation and management of the various Federal and State experiment stations and research centers consists mainly of annual tours. However, some instructors in these institutions have done worth-while research as requisites for advanced degrees from some of the Nation's outstanding agricultural institutions.

Mr. Brannan told the conference that he thought the act would make it possible for the Negro land-grant colleges to initiate some research projects. He suggested that the presidents draft a proposal outlining how they felt they could participate in the research program and send it to Secretary Anderson.

The land-grant college heads also conferred with President Truman, pointing out to him their need for: (1) Greater access to experiment station facilities; (2) expansion of personnel and support of cooperative extension work for needed programs in adult education; (3) greater access to surplus property; and (4) the activation of additional ROTC units in their institutions.

Speaking for the group was Dr. Sherman D. Scruggs, president of the association, of which there are 17 member and 7 associate member colleges. Negro land-grant colleges are situated in the following States: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. Among the associate member institutions are: Tuskegee, Howard University, Atlanta University, and Hampton Institute.

Despoliation

AT LEAST two agencies of the Department of Agriculture seek in the main to conserve and re-create the natural wealth we as a people have wantonly despoiled. They are Forest Service and Soil Conservation Service.

Although a third of our area is in forest land—630 million acres all told—168 million is noncommercial for saw timber production, and of the remaining 462 million some 75 million are virtually nonproductive because of destructive cutting and fire. All the remainder except 100 million acres has been cut over and now produces at but a fraction of capacity. Between 1909 and 1944 our standing saw timber was reduced 43 percent, a third of that left being too inaccessible for harvest at reasonable cost. In 1944 the estimated drain on our saw timber exceeded annual growth by 50 percent.

The soil story is just as shocking. We have about 460 million acres of high-class cropland left. This includes, in addition to areas in crops, about 100 million acres in need of drainage, irrigation, clearing, and so on. All but some 70 million acres is subject to erosion and needs protection. We have ruined a fifth of our original tillable land, and a third of what remains is badly damaged, another third highly vulnerable. We are just learning that forests can be managed on a sustained-yield basis and that the soil is an impermanent and complex resource which must be treated with care.

What is being done? Of our 630 million acres of forest land, 196 million are in public ownership, but only 120 million acres of commercial forest land is owned publicly and 341 million acres privately. Private ownership includes nearly 90 percent of the Nation's timber-growing capacity, and furnishes between 80 and 90 percent of the present cut. Moreover 64 percent of all cutting on private land is poor or worse from the standpoint of future crops. Many more millions of acres should be acquired as public forest land, and insofar as possible cutting on *all* forest land, however owned, should be publicly regulated in line with known scientific principles, which conserve the soil and water supply and which if fully applied could enable us continuously to produce all the wood we are likely to need.

As to the soil—by the middle of 1947 there will almost certainly be 100 million acres farmed in modern conservation-practice manner. There are now nearly 1,700 farmer-managed soil conservation districts encompassing approximately 4 million farms, through which SCS extends technical and other help. There is general recognition that good land is not inexhaustible and the careless prodigal attitude toward the good earth is on the way out. It is incontestable that these two great agencies, FS and SCS, are performing public service of untold monetary value in preventing further deterioration and destruction of the forests and the soil, in keeping the land reasonably productive, and in conserving and improving water supplies.

Statistics separates

THE 1945 edition of Agricultural Statistics—a 600-page volume of statistical material—came from the press in May 1946. If you have not yet received a copy, write the Office of Information or pick it up at the publications desk in the patio, Administration Building.

Copies of the 11 separates, or reprints of the various chapters of the book, are now available in BAE (phone 4407). These separates, which are particularly useful in answering letters, are numbered consecutively from 94 through 104.

Good progress is being made on the 1946 edition of Agricultural Statistics, which it is hoped will be available around January 1, 1947.

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Ag editor

WILLIAM H. BISCHOFF is a rather spare, sandy-haired Georgian who manages to look about a decade younger than he confesses being in actuality. He has been in journalism all his life. But not so very long ago he decided that Florida agriculture offered a unique subject about which to write. In that he is not far wrong. Agriculture *is* unique in Florida and, in the southern part of the State, you would have to lay a cement walk over seed to prevent them from coming up. Even then they might manage it, lifting the walk above them.

In any case Bischoff became agricultural editor of the Miami Daily News, on which he does a fine job. He manages to make each article attractive to the reader without sacrifice of accuracy. He sees *USDA* regularly and occasionally swipes something out of it. But when the *USDA* editor was in Miami he, in turn, found it worth while to purloin a little from Bischoff, after the Department people in the city informed the editor the facts were straight.

When you can write readably on agricultural subjects, and at the same time so accurately that local Department specialists have no adverse criticism, you are really going places. Bogged down as he was with sinus infection when we saw him, Bischoff wasn't smoking the huge pipe he should have had to be in character. But he is doing even better in transmitting agricultural material from both State and Federal sources, accurately and fascinatingly.

Vanishing cattle tick

THE ORIGINAL discovery of the nature and cause of cattle tick fever, made in the Bureau of Animal Industry and announced February 6, 1893, in its Bulletin No. 1, was an outstanding and epochal advance in the fields of both animal and human medicine. It cost approximately $65,000. It has been worth about *40 million dollars to the livestock industry each and every year.* Once the tick was indicted as the cause of the disease, dips and other methods of its eradication were developed.

This work has been under way since 1908, first in continental United States, later also in Puerto Rico and the Virgin Islands. The Southern States, where the tick originally did its deadliest work, have profited most, and annual losses from the disease have by now been reduced from 40 million dollars to a negligible quantity, although the Department and States are spending about $400,000 a year for protective and final clean-up work. In early days the eradication campaign not only aroused skepticism but turbulent opposition. Today the quarantine area is less than 1 percent of its original size.

Multiply 40 million dollars by 20, to represent only that span of years, and get an idea of the mere monetary value of agricultural research and the immense returns on an original small investment. The original discoveries were made by Theobald Smith, F. L. Kilborne, and Cooper Curtice. The total cost to the cooperating State, county, and Federal Government of cattle tick eradication will amount to little more than the previous annual loss before the program began. See Research Achievement Sheet No. 1, available from Agricultural Research Administration, for details (phone 3780).

Vivacious sage

DURING 1889—before there was a Department of Agriculture, as he now phrases it—a young man from Kansas joined our staff. Soon after he arrived the head of the Department was given Cabinet rank. The young man became a member of the group of young scientists who regularly met with Alexander Graham Bell, inventor of the telephone. In good time the young man married Bell's daughter and became the most notable plant explorer of them all. He sold "Tama Jim" Wilson the idea that plant exploration should become a duly organized activity of the Department, and ultimately it has been estimated that U.S. agricultural income has been enhanced by a hundred million dollars annually, due to the cultivation here of economically valuable plants, shrubs, and trees brought in from far parts.

Today, at 84, David Fairchild—white haired and with a smartly clipped white mustache—is a venerable philosopher, but he is also vigorous, vivacious, and vehement, a delight to meet and to know. He speaks forcefully, pounding his desk, his knees, his hand, for emphasis. His favorite haunt is his open-windowed study at The Kampong, in Coconut Grove, Fla. Nearby is the beautiful home overlooking the bay where he spends the winters with his family. Ever busy, ever observant, ever adding to the sum total of human knowledge, the author of The World Was My Garden (he said "was" not "is," because he wants the book read long after his death) will soon have another book off the press, entitled "The World Grows by My Door." Moreover, it does. Some 300 exotic plants and trees, about a hundred of them fruits, grow round his study and residence in rich tropical profusion.

Fairchild himself is sturdy, eager to learn, vital. His mind darts rapidly, with many ellipses, from subject to subject, often faster than you can follow. He remembers when the entire Department staff, all 500 of it, was crowded into the cluttered rooms of the old red brick building. He is master of the art of making the Department's work fascinating to many who would never otherwise have read about it. He dislikes cities and says people who see nothing but human beings miss a lot. But he is human to the *n*th degree, and you leave him and his earthly paradise with an awareness of having communed with one of the giants of "those days" in the Department's inspiring history.

Fertilizing corn

WHEN an investigator, working on a side line with corn, is able to steal the spotlight even temporarily from the amazing performance of hybrid corn, that's news! Dr. B. A. Krantz, Division of Soils, Fertilizers, and Irrigation, Bureau of Plant Industry, Soils, and Agricultural Engineering, cooperating with the Agronomy Department of the North Carolina Agricultural Experiment Station, has been doing just that. He's demonstrated that it is possible to more than *double* corn yields in North Carolina by the efficient use of fertilizer, improved hybrids, and proper management.

In 1944 he conducted rather extensive fertilizer tests with corn in North and South Carolina. These tests have been continued the past two years. His outstanding accomplishment was to obtain an increase of 88 bushels of corn an acre. A plot without nitrogen produced 19 bushels of corn per acre. With the application of 120 pounds of nitrogen, the yield jumped to 107 bushels. This, of course, is exceptional, but as the rooster said to his flock in exhibiting an ostrich egg, "It shows what can be done."

The smallest increase in a dozen of Dr. Krantz's tests was 32 bushels an acre under droughty conditions. So doubling the corn yield of the State appears to be a distinct possibility. The additional fertilizer can be added at a

cost the growers can afford, as may be judged from the fact that in the 107-bushel yield each dollar spent for fertilizer resulted in approximately 3 additional bushels of corn.

This means a lot more to North Carolina, and the South, as may be realized by some who picture the South as devoting 99 44/100 percent of its cropland to cotton. As a matter of fact, a third of North Carolina's crop acreage is devoted to corn—which matches up pretty well with the percentage of crop acreage devoted to corn in Iowa and Illinois.—JOHN A. FERRALL, PISAE.

"Lanky's" acres

HOW WOULD you like to be supervisor of a farm of 650,000 acres (just about the land area of the State of Rhode Island), doing a business of about a hundred thousand dollars a year, containing 650 miles of very good roads which must be kept up, and sprawling over 22 counties? That gives you a rough idea of "Lanky" (C. K.) Spaulding's job as supervisor of the Chattahoochee National Forest in north Georgia—but only a rough idea. For Lanky's "farm" forms only part of a 1.5-million-acre tract peppered with other farmers, who are on land Forest Service does not care to own, insofar as it is more suitable for farming than for trees, but who must be kept cooperative. His domain is divided into four districts, and a sub-manager or ranger is in charge of each.

Lanky's office is in Gainesville, Ga. FS provides homes for some of his rangers; others have to provide their own. His "farm" has 25 organized fire lookout stations within it, and during fire seasons these must be manned, and there must be specially trained crews of fire fighters who work at other things other times, but who regard their forest fire-fighting jobs as of supreme importance and regularly return to them. Lanky has to be on good terms with Federal, State, and county officials in every county seat, and with businessmen and farmers all over his million and a half acres. He is a tall friendly man, with a quick quiet smile; he likes people, and he loses no opportunity to cultivate good will. He seems to be the ideal fellow to be benevolent suzerain of a gigantic farm woodlot.

Next door to him is the Nantahala National Forest, just over the line in North Carolina, E. W. Renshaw, supervisor, with 400,000 FS acres in a total of one and a third million. Supervisors must be good businessmen as well as foresters. They can sell up to 2 million board feet of timber on their own responsibility, which means selecting and marking 4 or 5 thousand individual trees. Chattahoochee's annual budget is about $160,000. It takes in a hundred thousand. Such a forest could be self-sustaining soon, but it also performs all sorts of public service by providing recreation areas, camps for 4-H Clubs and others, fish and wildlife preserves, and above all the protection and upbuilding of the forest itself to sound sustained-yield levels.

In these forests the gaunt skeletal wrecks left by chestnut blight a decade ago are still being cut and sawed for "acid wood" to be used in tanning. Hence the annual cut (Chattahoochee—28 million board feet) seems to exceed growth (estimated at 20 million board feet), but the figures are illusive; the huge piles of dead chestnut, destined to be logged out for another decade, weight them down. The old chestnut roots sprout and new shoots often make a year or two of vigorous growth, but then blight and die. New blight-resistant trees may some day replace this lost American variety.

Public carelessness and vandalism are all too common in the forests. They greatly increase the expense of keeping up recreation areas and wildlife refuges. Incendiarism, from well-intentioned motives, is also much too common, though prescribed burnings under very careful control are helpful and often obligatory. The supervisor's responsibility is heavy at all times. If the woods burn it is his hard luck. But there is a fine spirit of public service here. Here also are employees of the highest type. Here finally a great agency with admirable traditions and a stirring history meets its complex problems and serves the public well.

Brief but important

The editor's first vacation since 1940, at Miami Beach, proved a good time to meet USDA personnel in Miami and vicinity. A pretty thorough job of this was done, as various items in *USDA* may indicate. Incidentally proofs of the editor's book, Two Blades of Grass, the first history of the Department of Agriculture as a scientific institution, reached him on the trip and had to be read for correction. It therefore proved to be quite a postman's holiday walking tour. The book, now in page proofs, should appear during the first two weeks of January 1947.

Information changes: Don Lehman, Assistant Director of the Office of Information in charge of press relations, left the middle of October to become marketing editor of Business Week. Director Keith Himebaugh then appointed R. L. Webster Associate Director, with the Press Service and Division of Special Reports administratively responsible to him. J. H. McCormick was named Assistant Director in charge of Publications, Motion Pictures, and Exhibits, a post formerly held by "Web." Seerley Reid, of Motion Pictures, succeeded Jim McCormick as Executive Assistant to the Director. "K. C." (W. K.) Charles became Chief of Special Reports, and Kermit Overby Chief of Press Service; the two latter have switched jobs.

Hormone slows potato sprouting: Dr. S. A. Wingard, of the Virginia Agricultural Experiment Station at Blacksburg, reports the development of a new plant hormone (similar to the one applied to prevent preharvest drop of apples) that retards the excessive sprouting of Irish potatoes. Known austerely to chemists as methyl ester of naphthaleneacetic acid, the new hormone keeps treated potatoes entirely dormant, or with only very short sprouts for 4 or 5 months at 50° to 55° F., or at higher temperatures for shorter periods. This treatment will be a great boon to commercial handlers of potatoes. The station says the hormone material is now being manufactured in dust form by at least two companies.

Are women people? It has taken a long time for men to admit that women are people. Yet progress is being made when we remember that woman was supposed even to have no soul not too many years ago. But you still sometimes hear supervisors say that no woman should ever hold such and such a job, though women frequently have held such jobs and have performed better than most men. We should by now have advanced to the point where discrimination against women on a sex basis was ended, and women's rights were recognized as those of human beings, not those of a separate and distinct group of persons. Meanwhile the Federal Government now employs 594,605 women fulltime, or 29 percent of all employees, and the USDA 21,448, or 28 percent of all its fulltime employees.

UN Food and Agriculture Organization is the title of a historical and explanatory article on this subject by the editor of *USDA* in Free World for October, a magazine the Library gets.

Workers in Subjects Pertaining to Agriculture in Land-Grant Colleges and Experiment Stations, 1945–46: This useful publication has been reissued from the Office of Experiment Stations, Agricultural Research Administration, under date of June. Ask for Miscellaneous Publication No. 603. Betty T. Richardson, of OES, compiled the list.

Tomato à la nicotine: When Jack Ferrall wrote in the last paragraph of his story on grafting tomatoes, *USDA* September 16, that the fruit might acquire jimsonweed or nicotine flavor, if the root stock were jimsonweed or tobacco, that was a joke son, and daughter. So far as is known, tomatoes grown on jimsonweed stock lack abnormal flavor while those grown on tobacco rootstock do not reek of nicotine.

Dade County (Fla.) Agent Steffani, and his assistant Edwards, were out of town attending a State-wide county agents' meeting at Gainesville when we were vacationing at Miami Beach and just dropped in. However, we ascertained that *USDA* was a regular visitor to the office, so we left mollified.

The Florida Keys Electric Cooperative Association, Inc., located at Tavernier on Key Largo, Fla., to which we made a very brief visit recently, is using a Rural Electrification Administration loan in a unique way, as al-

most all its services and power go to purposes other than the purely rural. It appears to be doing a fine job and has at least one young lady bookkeeper who knows how to explain its activities and to give it a subtle boost at the same time.

Plenty of potatoes: The October 10 Crop Report raised the estimated 1946 potato crop to 471,000,000 bushels—an all-time record and well above the goal of 378 million. The potato crop this fall is of excellent quality, too. A special drive was on November 7–16 to help move more potatoes into consumer channels. Get the Potato Fact Sheet from Distribution Control (phone 3511).

Meat from Mexico: You may be eating a juicy steak from Mexico some day soon. The special quarantine established June 5 against Mexican cattle was lifted October 18, after a joint Mexican-United States veterinary survey of Mexican herds—to which zebu bulls from Brazil were added during the past year—showed no foot-and mouth disease in Mexico. Our south-of-the-border neighbor usually ships annually to the United States between 300,000 and 500,000 head of light cattle, which are put on pasture and feed lots in the West and Midwest.

World cotton exports up: Foreign Agricultural Relations reports that world export trade in cotton has risen sharply since the end of the war. During the year ended July 31 it was 9,038,000 bales (of 50 pounds). This compares with an average of 5,072,000 during the 5 preceding wartime years and with a prewar average of some 13,000,000. Ask Press Service (phone 6114) for release 2244; or get the October 14 issue of Foreign Crops and Markets from FAR.

Presidential research board: President Truman, by Executive Order 9791, October 17, established the President's Scientific Research Board, of which John R. Steelman, Director of War Mobilization and Reconversion, is chairman, and Secretary of Agriculture Anderson is one of the 13 members. Its functions shall be to study scientific research and development activities. Fuller details on the work of this board are in the Executive Order, copies of which are obtainable from the Secretary's Records Section, 124–W, Ext. 3320.

Fire control chief to California: Perry A. Thompson, Chief of the Division of Fire Control, Forest Service, leaves Washington to become regional forester for Region 5 (California) sometime in November. "Pat," as Mr. Thompson's friends and coworkers call him, has been in FS, in both Washington and the field, off and on for about 35 years, with consecutive service since 1921. In San Francisco he succeeds Stuart Bevier Show, who left recently to join the Forestry and Forest Products Branch of FAO after 20 years in charge of national forests in California.

Record quarterly timber cut: Lyle F. Watts, Chief of Forest Service, reports that timber cut from national forests during the 3-month period ended September 30 was over 1,000,000,000 board feet—the first time in FS' history that the cut in any quarterly period has exceeded the billion mark. This record is due partly to demand for timber for the Veterans' Emergency Housing Program.

H. P. Gould dies: Harris Perley Gould, 75, world authority on fruit and vegetable research, who retired from the Bureau of Plant Industry, Soils, and Agricultural Engineering in July 1941, died October 17. Mr. Gould came to the Bureau of Plant Industry on July 1, 1901, the day it was established. He was widely known for his research on fruit production, was an international authority on fruit nomenclature, and wrote more than 100 Department publications. At the time of his retirement he was Chief of the PISAE Division of Fruit and Vegetable Crops and Diseases.

The Sunshine State: If you can't take a holiday right now, read an article by this title, which appears in November Holiday and was written by Duncan Scott, of the Information and Education Division, Soil Conservation Service. The State referred to is New Mexico, where Mr. Scott used to live. He once taught English literature and journalism at New Mexico A & M, and later joined the SCS regional office at Albuquerque. In December 1943 he joined the Navy, and returned in September this year to SCS in Washington. Mr. Scott also edited other articles on New Mexico in this issue of Holiday (get it from the newsstands).

ARA changes: Secretary Anderson, on October 16, announced the transfer of P. V. Cardon from Administrator of the Agricultural Research Administration to Special Assistant to the Chief of the Bureau of Plant Industry, Soils, and Agricultural Engineering. The change was made at Mr. Cardon's own request—acting on the advice of physicians—that he be given a less exacting position. The Secretary named W. V. Lambert, who has been Assistant Research Administrator, to succeed Mr. Cardon.

Mimeographed document supply: Please don't make an unnecessary trip, or send anyone else unnecessarily, to pick up the *USDA* mimeographed documents from rooms 423–E or 531–A (the offices of the two editors), as no supply is kept in these two offices. *The entire supply is kept in 406–A* (the "A" stands for Administration Building), the office of Miss Glick. And it's a good idea to phone her on Ext. 5451 before coming there or sending anyone else. If you want only a list of the names of the mimeographed documents, she can supply that; properly filled out, it becomes an order to be mailed in.

M. A. Huberman goes to FAO: Dr. Huberman, Chief of the Section of Forest Management, Forest Service, has left the Department to become assistant to the Deputy Director of the FAO Division of Forestry and Forest Products. For some 16 years Dr. Huberman held various responsible positions in FS in both the field and departmental service. During the war he served as assistant chief of the Timber Production War Project, and more recently he was in Japan, where as a scientific consultant he headed the Branch of Forest Resources of the Division of Forestry in the National Resources Section of General MacArthur's headquarters.

Merritt Nichol Pope retires: Dr. Pope, well-known authority on the barley plant, recently retired after 28 years of service in the Bureau of Plant Industry, Soils, and Agricultural Engineering. He worked out methods of inducing continuous growth of the barley embryo into a plant without first becoming a seed, and of charting the course of the pollen tube as it goes in to fertilize the flower, and studied the growth rate of barley and seed as influenced by environment. Dr. Pope and the late H. V. Harlan developed back-crossing of small grains, a breeding method now widely used by plant breeders. A native of Illinois, Dr. Pope had earned degrees from Northwestern, Harvard, North Dakota Agricultural College, and University of Maryland.

Fewer purple stamps: Much meat we buy now lacks the familiar purple stamps for Federal grading. This grading has not been compulsory since OPA ceilings were removed from meat, though the service is still available to packers and slaughterers on a voluntary basis. During the war between 90 and 95 percent of all meat sold in the country was stamped Choice, Good, Commercial, or Utility by Federal graders.

Flying livestock: Office of Foreign Agricultural Relations reports that air transportation of cattle is helping breeding stock from the United States to improve dairy herds in Latin America. Air freight companies are now shipping dairy cattle from Wisconsin and other Northern States to Guatemala, for example, for $22 a hundredweight, said to be less than the cost by rail and ship. Cattle shipped by air to Guatemala have arrived within 24 hours in good condition. A shipment of 33,300 chicks arrived in Manila recently from California in 42 hours, also in good condition. The chicks, part of about 100,000 chicks for the Philippines, were produced under the National Poultry Improvement Plan.

Personnel directory: Office of Personnel Memorandum No. P–608, issued October 6, is a very useful list of PERS. people responsible for particular phases of personnel operations, such as classification, employment, leave, retirement, rules and regulations, training, and many other matters, all of which we want to know about. Call Ext. 5965 for a copy of this memo.

Missouri Basin representative: Gladwin E. Young has been named field representative, Office of the Secretary, in the Missouri River Basin. Development of the land and water resources of the Missouri River and its tributaries on a large multiple-purpose scale has been authorized by Congress and is now under way. Mr. Young, who has headquarters in Lincoln, Nebr., replaces A. E. McClymonds (Soil Conservation Service) on the Missouri Basin Inter-Agency Committee, and also serves in the field as Department liaison and coordinating officer with all groups interested in resources development. (Secretary's Memorandum No. 1176, October 17.)

Public servants: Government employees serve the people of the United States. Amendment No. 223 to the Regulations of the Department, issued by the Office of the Secretary, states well this aspect of our personal conduct: "It is the duty of employees of the Department to serve the people well and faithfully, under the Constitution and the laws of the United States, and to administer these laws and the work of the Department impartially, efficiently, and in accordance with the public interest."

Our Tasteless Food: An article by this title in October American Mercury makes melancholy reading because it hits so near the truth. It is by John C. Ross, a journalist who loves and knows good food. Verbum sap.

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FOR DECEMBER 9, 1946

Facts for you

THE FOLLOWING facts were derived from two brief talks by a man who can pack as many of them as anybody into an entertaining talk—Secretary Anderson. They are set down here as good for Department personnel to know.

About one out of every five persons in the U. S. lives on a farm and another fifth of our population lives in rural areas strictly dependent on farms. The farm population includes about a third of all children in the Nation, and when one of these grows up and moves to the city he automatically subsidizes it to the extent of some $2,000—the amount of money out of farm income that it cost to grow and educate him.

Farm people supply about half our increase in population, and farms supply raw materials for from two-fifths to two-thirds of industry's needs. A third of the people in our factories are processing or fabricating farm-derived raw materials. Railroads get around a fourth of their operating revenue from hauling agricultural products. Last year farmers took in 21½ billion dollars, a new record.

Rural areas have more than half the U. S. children under 15 and a higher proportion of persons over 65, hence they face a disproportionate share of our educational responsibilities and health problems. Compared with urban people, those who live on farms have three times as many cases of typhoid, twice the diphtheria death rate, an infant death rate one-fourth higher, a maternal death rate a third higher, and syphilis and tuberculosis are becoming more common among them.

Rural hospitals are smaller and more poorly equipped than city hospitals, while the ratio between doctors and population tends to be lower. Selective Service rejected more young men from farms than from cities for physical defects. Rural schools in general fail to meet most city standards and farm people average fewer years of education than city people.

In these days of scientific farming, education is an important asset in making a living, but only 21 percent of the men on farms have completed one year of high school, as compared with 43 percent for city people; the comparable figures are 28 and 46 percent for women. Rural teachers usually get less pay than city teachers; rural communities spend less on education. Few rural counties have adequate departments to deal with juvenile delinquency.

Nearly 750,000 farm dwellings had to be abandoned during the war. Only about half of the existing farm homes have electricity, a little over a fourth have running water, about a sixth have bath and toilet, and fewer than that have central heating. Through the prices of things farm people buy, they are helping pay the cost of national social-security programs, but so far they lack old-age and survivors' insurance and workers' unemployment compensation.

For digests of these speeches request 2262 and 2266 from Press Service (phone 6114). They were delivered before the Illinois State Chamber of Commerce and the Indiana State Grange.

Research-marketing committee

AN 11-man National Advisory Committee, provided for in the Research and Marketing Act of 1946, was announced October 24 by Secretary Anderson as follows:

Howard E. Babcock, Ithaca, N. Y., is chairman of Cornell University Board of Trustees and an operator of poultry and livestock farms. Fred Bailey, Washington, D. C., is legislative counsel for the National Grange and Washington correspondent for many farm publications. Robert R. Coker, Hartsville, S. C., is vice president of Coker's Pedigreed Seed Co., and adviser to the Board of Directors of the National Cotton Council. John H. Davis, Washington, D. C., is executive secretary of the National Council of Farmer Cooperatives, and between 1936 and 1944 was with USDA. Charles F. Kettering, Dayton, Ohio, engineer and inventor, is manager of the Research Laboratory Division of General Motors. C. W. Kitchen, Washington, D. C., whom USDA people remember, is executive vice president of the United Fresh Fruit and Vegetable Association; he was in USDA for 34 years. Albert K. Mitchell, Bell Ranch, N. Mex., is manager and co-owner of this 470,000-acre ranch which is in five counties. James G. Patton, Denver, Colo., is president of the National Farmers Union. Walter L. Randolph, Fayette, Ala., is president of the Alabama Farm Bureau Federation, and before that was in AAA. H. J. Reed, West Lafayette, Ind., is Dean of Purdue University School of Agriculture and Director of the Experiment Station and of Agricultural Extension. Kerr Scott, Raleigh, N. C., is State Commissioner of Agriculture and operates a large dairy farm; he used to be a county agent.

"All of the members of this committee have been chosen to represent agriculture as a whole and the general public interest, rather than particular branches of agriculture or segments of our national economy," Mr. Anderson said.

The act provides that the Secretary of Agriculture shall be chairman of the committee. Mr. Anderson said it was expected special committees would be named later. No funds have yet been appropriated under this act. More details on the committee members and on the act are in press release 2341 (phone 6114).

School-lunch conference

THE National School Lunch Conference, called by Paul C. Stark, Director of Production and Marketing Administration's Food Distribution Programs Branch, was held October 22 and 23. Invitations had been issued for two persons from each State, one from the State PMA office and one from the State educational agency, both of which agencies have been assigned responsibility for school lunch administration. Although primarily a working session for the State people to familiarize themselves with over-all policies being implemented under the National School Lunch Act, the program was productive of a number of important statements.

These included remarks by Secretary Anderson; Under Secretary Dodd; PMA Administrator Shields (who has left USDA as previously announced); Dr. F. B. Norton, recently of Alabama and now Deputy Commissioner and Director, Division of School Administration, U. S.

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Office of Education; Dr. Thomas Parran, Surgeon General; Father William J. Gibbons, National Catholic Rural Life Conference; Dr. Hazel K. Stiebeling, Chief, Bureau of Human Nutrition and Home Economics; Mrs. Eugene Meyer, staff writer for the Washington Post; Hon. Tom C. Clark, Attorney General; and Sir John Boyd Orr, Director General, FAO. PMA (phone 5223) has copies of the talks of Secretary Anderson, Under Secretary Dodd, Mrs. Meyer, Dr. Parran, Father Gibbons, Sir John, Mr. Shields, and Dr. Stiebeling. Each merits your careful reading. Field people write PMA Director of Information.

Nutritionists and home demonstration workers will be particularly interested in Dr. Stiebeling's address. She pointed out, among other things, that in planning school lunches in different communities special emphasis should be given to adding those parts of a balanced diet likely to be lacking in the local food habits. Mrs. Meyer said that the eventual goal of the school lunch program should be a "free hot midday meal for every child, at least in the nursery and grammar schools . . ."

Sausage trees et al.

DOWN IN the Plant Introduction Garden, Coconut Grove, Fla.—H. F. Loomis in charge—African "sausage trees" grew unmolested during the meat shortages. Rubber trees of many kinds, mahogany trees, 40 or 50 varieties of figs, 150 of the palm—all told 300 to 400 tropical trees and plants grow, most of which would not thrive elsewhere in the U.S. So far more than 12,000 introductions have been made here from all over the world. Today the staff is still cleaning up after the big wind of September 15, 1945, which wrecked the water tank and hundreds of specimens, among them too many palms which are exceedingly heavy but will not burn.

Way back on July 7, 1838, Congress made a grant to a physician, Dr. Henry Perrine, a former U.S. consul in Mexico, of a plot of land 6 miles square, on which he intended to introduce and acclimate trees, shrubs, and plants from all over the world. This grant lay to the west of Chapman Field—named after Manuel Chapman, first U.S. aviator killed in World War I—where the Plant Introduction Garden now is. About two years after Dr. Perrine undertook his pioneer enterprise, he was slaughtered by the rampaging Seminole Indians while on a visit to Indian Key. So the first effort to establish such a garden ended in stark tragedy.

Today the garden contains 95 acres on a 99-year lease from the War Department and 65 acres more on a 5-year extendible permit. The garden needs more land, but prices run a thousand dollars an acre now, a fact which would no doubt astound Dr. Perrine if he knew about it. Nearby also is the David Fairchild Tropical Garden, established by Fairchild's benefactor, Robert H. Montgomery, wherein a museum displays the extraordinary and incredible things that can be done with the palm.

In the introduction garden proper grow rubber trees in great variety, some of which bleed rubber profusely when merely stuck with a knife. Here it is possible to make rubber hybrids between trees which normally flower at widely different times, for the trees flower oftener here, two or three times annually, while the South American leaf disease (SALD), which banished commercial growing from that continent, is absent. Numerous new potential oil producers also are being grown and many other plants are being tried out, hybridized, and acclimated that may have tremendous future economic value.

Today plant explorers no longer run off haphazardly to far parts just to see what they can find. The technique of plant exploration has changed. Normally the explorer knows just about what he wants and just about where to find it before he starts out. The obvious plants have been introduced. But some parts of the earth—Mexico, right at our door, for instance—still require exploration, and requirements in the garden change constantly. One leaves such introduction gardens with ever-increasing respect for the zealous industry displayed all over the world by B. Y. Morrison's (Bureau of Plant Industry, Soils, and Agricultural Engineering) highly trained staff.

What! no barns?

FARMING Without Barns, by Vilhjalmur Stefansson, appeared in January Harper's Magazine (available from the Library) and also in August Reader's Digest. Farming without barns—just that. According to the author, it is a good idea and such farming might be feasible and profitable. It might come to pass in our Northern States.

The animal to be "farmed" without barns is not the cow or the sheep, but the musk ox, or *Ovibos*, a sheeplike animal four times the size of a sheep. It is said to produce better wool than sheep, and as good beef as cattle. The *Ovibos* gives good milk, though somewhat less of it than the cow. Farming without barns may prove an arresting idea for the future of agriculture.

If interested, there is more on the *Ovibos* in our Library. Ask for The Return of the Musk Ox; it is a part of the Smithsonian Report for 1942, pp. 317–322. Or the separate pamphlet with six plates may be obtained free for the asking from the Smithsonian Institution. Write or phone. It makes stimulating reading.—BERTHA E. R. CONKLIN, PMA.

REA training courses

MORE THAN 7,000 persons are receiving the benefits from training courses sponsored by the Rural Electrification Administration. REA has long believed in the principle that a "trained employee is an efficient employee," and conducts an educational program to train the efficient office and field staff which carries on its rural electrification activities.

The REA employee's education begins soon after he starts work with the agency, when he attends four 2-hour sessions at an orientation program. REA officials, including Administrator Claude R. Wickard, explain the agency's program and the work of REA's different divisions.

Similar curricula are followed in the year-long training programs set up for junior engineer trainees—graduates of United States electrical engineering schools—and for Latin American engineers. The trainee program was started in 1936, and before it was interrupted by the war graduated 143 electrical engineers, many of whom are now permanent REA employees. The Latin American program, first started in 1941, has resulted in the graduation of 26 Latin American engineers who have returned to their own countries to apply the knowledge learned here.

At present 13 Latin Americans and 10 World War II veterans, who are receiving part of their training under the G. I. Bill of Rights, are enrolled in the two courses. The engineers study the construction and operation of rural electric-power systems and take their training in both REA offices and the field.

REA's Finance Division has two training programs. One is for REA employees and the second is a correspondence course for bookkeepers of REA-financed

co-ops. The purpose of both is to train employees in the use of REA's uniform methods of bookkeeping and auditing.

In the bookkeeper's school in Washington 114 REA employees are enrolled, including 53 veterans who are also receiving on-the-job-training under the G. I. Bill. Their training consists of classes, instruction, and drills on bookkeeping and auditing practices and activities within the division.

The correspondence school, first started in 1944, is open to employees of REA or of its financed cooperatives. At present 1,327 employees of 556 of the 921 REA-financed cooperatives are taking the course, which consists of 12 lessons on elementary accounting and 9 lessons on the REA method of keeping uniform types of books. More than 100 persons have already been certified as REA-approved bookkeepers and accountants.

To meet the need for properly trained linemen, and to reduce the number of accidents on REA-financed distribution lines, a job training and safety program was set up 6 years ago, in cooperation with the U. S. Office of Education and State Trade and Industrial Education Departments. Now more than 6,000 linemen, of whom more than half are veterans, are receiving on-the-job-training while working on the power systems of REA-financed co-ops. Their training is supervised by 26 job training instructors, who are experienced line foremen schooled in teaching methods. The program operates in 21 States and uses the facilities of more than 74 percent of all REA-financed rural electric cooperatives.

Officially born

NOVEMBER 1 marked the official birth of the Farmers Home Administration, though we have had pretty obvious intimations of its coming arrival since August 14, when the FHA Act was signed. It takes over the job of providing operators of family-type farms with credit to improve farming operations or to become owners—work that had been handled formerly by Farm Security and the Emergency Crop and Feed Loan Division of Farm Credit Administration. FSA and seed loan work formerly handled on a regional basis will be shifted to State offices, and many State directors have already been appointed. Ask FHA for details.

The new agency has approximately 640,000 borrowers with loans outstanding, including 37,000 farm ownership loans, plus more than 950,000 crop loans, and approximately 100 million dollars for lending purposes for the balance of this fiscal year. Its Administrator is Dillard B. Lasseter, and *USDA* has previously summarized details regarding its work. FHA will continue liquidation of the resettlement projects formerly operated by FSA, approximately 80 percent of these having already been sold to veterans, present occupants, or, via open bid, to the public.

Good luck, long life, more power!

On the radio front

IN CASE the war got you out of touch with the Radio Service and what goes on there, here are a few notes collected by *USDA's* Editor when he called to extend an official welcome to Ken Gapen, new chief. Gapen, in case you didn't know, was in San Francisco for several years as the Department's field radio representative in the West.

What are the notes? The first is about the National Farm and Home Hour. On October 5 the sponsor of this program celebrated the first year of this relationship by extending coverage to the full network of the National Broadcasting Company—157 stations. This is by far the largest outlet ever available to a farm radio program.

On the air continuously for about 17 years as a public service program, the Farm and Home Hour was discontinued in 1945. Later last year it was revived under its present sponsorship for commercial airing over nearly 50 stations of NBC. About 50 more NBC stations responded to an offer from the network to carry the program on a sustaining basis—that is, with the commercial announcements omitted.

The program is heard once a week now—on Saturdays at 1:00 p. m. e. s. t. USDA cooperates by filling five minutes of time in any way it wishes. The time is used now for a weekly summary of farm news from Washington. USDA also furnishes weekly market news, and every other week or so a feature with special information for homemakers.

Don't confuse the Farm and Home Hour with the American Farmer. Both are half-hour programs, and both originate in Chicago, one 30 minutes ahead of the other. The Department supplies information to both. The American Broadcasting Company brings you the American Farmer, which came on the scene in January 1946 as a public service feature of ABC over about 80 stations. It is presented weekly—on Saturday, at 12:30 p. m. e. s. t.

The Department also has 5 minutes on the American Farmer for unrestricted use. This time is filled by a weekly news feature called "The Business Side of Farming." You'll also frequently hear special USDA stories on this program—features about the accomplishments of our research agencies for better farming, studies and reports by our economists, and information about new programs that affect crop production — and changes in old programs.

A third network program now supervised by the Radio Service is Consumer Time, which brings useful information from USDA to Mrs. Average Housewife. Direction of this program was transferred the first of the year from the Production and Marketing Administration to Radio Service. Consumer Time is in its fourteenth year on the air. Its present form of story telling is semidramatic. A Radio Service writer prepares the script on subjects previously scheduled and approved by Department and radio officials. NBC produces the 15-minute show, and carries it over 70 or more stations as a public-service feature. If your NBC station carries Consumer Time, you can dial it on Saturday at 11:15 a. m. e. s. t., or later if delayed locally.

This network radio cooperation represents only one sector of activity in the Radio Service, of course. We'll get to the other sectors later—Ken Gapen has promised *USDA* more frequent reports from the radio front.

Brief but important

Sky doctor: The Forest Service now has a "para doctor" ready and equipped to drop from a plane and quickly aid injured persons anywhere in the wilderness areas of the northern Rocky Mountain region. Dr. Amos R. Little, of Helena, Mont., has been appointed consulting medical officer for FS and will be available for emergency service in back-country accidents. Dr. Little was trained in parachute jumping at the FS "smoke jumper" training center in 1943, while in the Army Medical Corps. Later he was a member of an Army group assigned to aerial search and rescue work in Colorado and Wyoming. The idea of parachuting civilian doctors originated with the late Dr. Leo P. Martin, of Missoula, who trained with FS smoke jumpers in 1941, then entered the Army and lost his life during the war.

Miss Frances Perkins: If reports by that usually reliable authority, Jerry Kluttz, Washington Post, may be credited, this new woman member of the Civil Service Commission is a force to be reckoned with in believing that Federal Government employees have rights as well as responsibilities. She apparently regards Federal workers as people. She feels that they are hobbled by too many officious regulations, that too many personnel

officers deliberately address employees in language they cannot understand, and that the applications they fill out to get jobs often list questions to which they should reply: None of your business. *What do you think?* At least the lady's future will be watched with interest.

Farmer-businessman: Business Week for November 2 contained a highly stimulating supplement in the form of a Report to Executives on Better Farming, Better Markets, which tersely analyzed farming as a modern business using revolutionary new productive methods and equipment.

Department periodicals: In answer to the oft-asked question, How many periodicals does the Department publish and what are they? here they are, with dates they began to appear: Agricultural Situation, 1922; Agriculture Decisions, 1942; Agriculture in the Americas, 1941; Consumers' Guide, 1933; Crops and Markets, 1924; Experiment Station Record, 1889; Extension Service Review, 1930; Foreign Agriculture, 1937; Journal of Agricultural Research, 1913; Land Policy Review, 1938; News for Farmer Cooperatives, 1934; Rural Electrification News, 1936; Soil Conservation, 1935. If you want to know more about any of them, write the editor of *USDA* who will try to find out and tell you.

Research pays off: In the late 1920's farmers in scattered sections of North Carolina began to abandon tobacco because of soil diseases known as root rot, black shank, and Granville wilt. Then followed years of research to produce immune varieties. First of these to be put in production in 1940 were 400 and 401, immune to black root rot. It took 10 years and $30,000 to develop them. Oxfords 1 to 4, which survive on black shank infested land, cost $40,000 to develop, were offered to growers in 1944. Oxford 26, under development 40 years and costing $152,000 to perfect, is immune to Granville wilt. For this total expenditure of $222,000 of State and Federal funds it became possible for North Carolina farmers to raise tobacco worth millions of dollars *a year* on thousands of acres previously abandoned.

Another world food crisis in 1947 is anticipated by UNRRA. Though rising above 1945, food production in UNRRA-assisted countries is still below prewar years, and most of them lack sufficient foreign exchange to import needed foodstuffs, along with the raw materials and equipment required to achieve full employment.

The paper shortage is more acute than at any time during the war. Secretary's Memorandum No. 1178, October 25, makes this plain. Sometimes it may become necessary to use colored or poorer quality white paper for multilithing; sometimes it may be impossible for periods to do multilithing at all, due to entire lack of paper. Every effort will be made to stretch supplies and to examine all printing orders critically, returning those not regarded as essential. See the memorandum for details.

Experts: Speaking of experts, the late Leonard P. Ayres, of Cleveland, is quoted as having once said experts should be hired for advice. "The office of the experts is to inspire the laymen. A task of the laymen is to curb the transports of the experts."

Photograph of your boss? Many field workers express a desire to have a good photograph of their bureau or division chief; they tell this to the editor when he calls, but possibly do not write in to their own agency to drive the point home. People like to know what sort of looking fellow the boss is. If *you* don't know, and want to find out, write in to Washington and insist they get a photograph to you. Maybe a photographic organization chart can be devised later for all agencies to issue to field offices.

Former Secretary Howard M. Gore (he served November 22, 1924, until March 4, 1925) recently survived a critical illness and is again getting around actively. He was Governor of West Virginia after leaving the Department and had been prominent in that State ever since.

Milo maize: The New York Herald Tribune of October 29 reported on a new plant the Corn Products Refining Co. was building in Texas, at a cost of $10,000,000, to produce starches, dextrose, high-protein livestock feed, and crude oil from milo maize. This company for some years has been interested and cooperated in experiments carried on by the Department in growing this plant in semiarid regions of the Southwest. USDA research was said to have developed a short-stock or dwarf variety which could be harvested efficiently with a combine or grain header. The new plant should process 20,000 bushels of milo maize daily, producing 50,000 tons of high-protein livestock and poultry feeds, and 100 million pounds of dextrose annually. See Under Secretary Dodd's letter of October 25, to the assistant to the president of Corn Products; ask Press Service for 2364; write or phone 6114.

Forest Lookout is the title of a very interesting article on the fire-detecting activities of Forest Service; it is by Ella E. Clark and appears in the July National Geographic Magazine.

Synthetic liquid fuel plant: The experimental synthetic liquid fuel plant built at the Northern Regional Research Laboratory in Peoria, to produce alcohol and byproducts from farm residues and mentioned previously in *USDA*, is now complete and in operation. For details and complete background get 2347 from Press Service. Call 6114 or write. The new plant should produce 500 gallons of alcohol daily; it forms part of a general research program authorized by Congress in 1944, for building demonstration plants to produce liquid motor fuels from nonpetroleum sources.

Read and study the leading article in Science for October 11, The Cultural Understanding and Appreciation of the Scientific Approach, by Ralph H. Ojemann, of the University of Iowa. Here you will find a popular analysis of most interesting investigations designed to find out whether community leaders and the scientifically educated younger generation actually understand what the scientific method is. It appears that, while the public is familiar with established scientific facts, it knows little or nothing about the manner in which the scientist works and the basic nature of scientific research and scientific verification. The article merits close study by all interested in science, culture, and education.

Records: People in the Office of Plant and Operations often horrify us with tales about records. Too few employees who leave the service suddenly, whether by retirement, resignation, or death, have gone over their records fully, discarded those that are worthless, and arranged the rest so that others can understand them. Much space is occupied by records which others feel incompetent to sort and evaluate. In this connection, but broadly conceived, see Executive Order 9784, September 25, regarding records management and disposition, which was distributed with Secretary's Memorandum 1160, Supplement 1, October 23.

It's the air you taste: Vacuum-canning processes take the air out of orange juice, making it taste unnatural. If you like the taste of air, pour the juice back and forth from one tumbler to another for a while before you drink it. Gives you exercise too.

The Department from 1862 until 1889: Agricultural History for July contains a highly informative, though heavily documented and footnoted article, by Prof. Earle D. Ross, Department of History, Iowa State, entitled "The United States Department of Agriculture During the Commissionership; A Study in Politics, Administration, and Technology, 1862–1889." It covers that unique period during which the first and longest trial was made of departmental organization without executive status.

Syme T. Cabell, employee in food and drug work from 1907 until his retirement in 1942, hence long a USDA staff member, died in Washington October 6. When he retired he was in charge of Food and Drug Administration's Office of Interstate Records.

Farmer–rural storekeeper: Every now and then a farmer becomes the village storekeeper and sometimes he is very successful. In The Passing of Casper Hawkins, Harper's Magazine for November, Gaines B. Hawkins gives an unforgettable portrait of one of these who became a true institution in his Mississippi community. Read it also to get an idea of problems the farmer faces and what his ordinary run-of-the-mine life is like.

Otis O'Neal: The Progressive (Madison, Wis.) for September 30 contained the remarkable story of Otis Samuel O'Neal, veteran Georgia Negro county agent. Reader's Digest for November told the story more compactly, but it is worth reading in either magazine.

Department organization: The address delivered by the Secretary before the National Grange, at Portland, Oreg., November 15, is a fundamental policy statement with which you should familiarize yourself, especially in connection with postwar departmental organization and reorganization. The title is "Farm Organizations and Government." Ask Press Service, Ext. 6114, for 2459. Also see the Secretary's letter to the Master of the National Grange, Albert S. Goss, dated October 30, from Albuquerque; Press Service has copies.

Gilmer Acting PMA Administrator: Jesse B. Gilmer, Deputy Administrator of the Production and Marketing Administration, who has been on leave of absence since last July, returned to active duty November 12. As Deputy Administrator, Mr. Gilmer serves as Acting Administrator of PMA pending the appointment of an Administrator by Secretary Anderson. Robert H. Shields, former Administrator, resigned October 31.

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USDA

FOR DECEMBER 23, 1946

Potatoes and price support

LATE IN November, Secretary Anderson reported to Congress on the problems and costs involved in the Department's 1946 potato program. The reports were addressed to the chairmen of the House and Senate agricultural committees and to the ranking minority members of the two committees.

At the same time the Secretary called attention to the whole question of price-support operations under the provisions of the Steagall amendment. In brief this legislation calls for price support at not less than 90 percent of parity for 2 full years, after the official declaration that hostilities have ceased, on all farm commodities for which the Department formally asked increased production to meet wartime needs.

The 1946 potato program was outlined to show the difficulties with the "first of the major postwar 'surplus' crops." In complying with the Steagall amendment, the Department is being forced to spend about 100 million dollars this year to support potato prices at the required level. Only about 20 million of this expense will be salvaged through diversion to starch, alcohol, livestock feed, and other special uses, leaving a net cost of about 80 million dollars. In addition, several million bushels of potatoes will probably rot or freeze in temporary storage before they can be moved at all.

In an effort to avoid a repetition of this costly and wasteful situation, the Department has announced that production goals for next year will be backed by a program which will limit price support to those growers who stay within their established acreage goals.

Because the problems now faced with potatoes "may arise in the not far distant future for other commodities," the Secretary urged an early joint conference with the Senate and House Agricultural Committees to review the whole question of price-support policy to accomplish the basic objectives of the legislation involved. The related questions of price support and production levels were referred to by the Secretary as "one of the most fundamental questions before us at this time."

All-out production

WORLD supplies of all basic foods are still far short of meeting world needs. Early in November the International Emergency Food Council made public a resolution emphasizing the importance of carefully husbanding food resources by countries dependent upon food imports to maintain their populations. The situation is very serious for cereals, including rice, fats and oils, and sugar. While world wheat production should reach the prewar level in 1946–47—600–700 million bushels more than last year—even this increase will be substantially offset by declines in world stocks.

On November 8 the U. S. national farm goals, calling for top production, were announced by Secretary Anderson. They seek a total of 358.5 million acres—297.5 million for cultivated crops, the remainder for hay crops—or 3 percent above actual 1946 acreages. We must produce not only to meet the needs of strong domestic demand, but also to supply some of the food and farm products required in war-devastated countries. Yet the goals must be considered in relation to good land use, and flax and wheat growers especially are cautioned against breaking sod or grassland unadapted to continued cultivation, as this would create future erosion hazards.

Greatest production expansions are called for in acreages of cotton, flax, dry beans, soybeans, barley, and grain sorghums. The suggested goals for potatoes, peanuts, and burley tobacco are considered the maximums desirable in terms of need. The wheat acreage goal is the same as for 1946, or 3 percent above the 1937–41 average. The beef-cattle slaughter goal, if achieved, will provide 155 pounds of meat per capita, as compared with the 126-pound average for 1935–39, and the estimated 140–145 pounds for 1946. For details see release 2444; ask Press Service (phone 6114).

Pioneer plant pathologist

ON December 25, 1866, Albert Frederick Woods thought his parents deserved a Christmas present, so he gave them himself as one, in Belvidere, Ill. Eighty years later, Dr. A. F. Woods, former distinguished plant pathologist, dean of Minnesota College of Agriculture and director of its experiment station, president of the University of Maryland, director of the Department's scientific work and of its Graduate School, delegate to the International Institute of Agriculture, and president of the Land Grant College Association—to name only a few of his distinguished posts—decided to give himself a Christmas present. So he retires this month to work at the University of Maryland with his plant-pathologist son on the *origin* of the filtrable virus, and to set words to sacred music—his long-time hobby.

Moreover, Dr. Woods had a great deal to do with the development of the theory of viruses. Way back there as a Nebraska botanist, and later as a member of that extraordinary galaxy of distinguished plant specialists which gathered around B. T. Galloway in the Gay Nineties, he demonstrated that tobacco mosaic was caused not by a living microorganism but by some nonliving yet not-quite-dead substance which he regarded as an enzyme. The work went on from there until it fructified in Vinson's separation of the virus from diseased tobacco and its crystallization by Stanley. But Dr. Woods was a gifted organizer and administrator as well as a farsighted scientist.

He received his earned degrees from the University of Nebraska. Beginning as an assistant pathologist in 1893 he became successively an assistant division chief, and pathologist, physiologist, and assistant chief of the Bureau of Plant Industry. He served at Minnesota from 1910 until 1917, and at Maryland from 1917 until 1926, becoming director of sci-

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entific work for USDA the latter year, until he reached retirement age in 1936, since which time he has been active and sparkling in the Department's Graduate School.

Dr. Woods has left his mark upon each institution he served. The imprint of his distinguished work as scientist, organizer, administrator, coordinator, and catalyzer will endure through years to come. He is a shining example of the career man in public service at the very best. Possessed of an ability that would have remunerated him highly in private enterprise, he elected to remain a servant of the people, leaving as his heritage the fruits of his researches and the strength and expansion in service he enabled this great institution to attain.

Even at 80, he looks hopefully ahead, and feels that his future is not behind him. Youthful in movement, active in brain, he has but changed the locus of his career a little and we hope to see him often.

Handling pay rolls

DON'T THINK that handling pay rolls is unknown to Department employees. For instance, while many of the Florida workers who pull up the wild cotton plants for Bureau of Entomology and Plant Quarantine, in order to stop the advances of the pink bollworm, are paid by check, others, especially the crews on shore and in houseboats around Miami and the keys, demand payment in cash biweekly. EPQ competes with others for this essential farm labor, the workers are used to being paid weekly—often daily—in cash, and there is just no other way around.

This involves handling a revolving fund of several thousand dollars, the complicated business of keeping time and making out and certifying pay rolls, and the handling of considerable cash. Employees who attend these chores must not only pay for their own bonding, but must also pay the annual rental of rather a large safe deposit box in which to store the cash—for it cannot legally be stored in a privately rented box along with other valuables.

Every step of the process occurs with due check and countercheck. Every so often the General Accounting Office in Washington sends a man down who reexamines the entire process in every detail. The pay rolls must be signed by each individual worker who receives cash and, if one or two are absent, that further complicates the machinery. Finally some neutral individual must sign the roll as satisfied that the right people were paid the right amounts, this in addition to the signature of the paying officer himself who really accepts the responsibility. USDA employees meet pay rolls all right, and it is a complex and delicate job doing so.

Grasshopper nemesis

OUR leading grasshopper expert, Dr. J. R. Parker, of Bureau of Entomology and Plant Quarantine, left in mid-November for Argentina, traveling by air. He went in response to a request by the Argentine Government for an entomologist to advise on combat of a grasshopper plague now spreading over wide areas of that nation. Dr. Parker has been at war with the grasshoppers since 1910, and the high degree of control attained in the U. S. is based primarily on his research.

U. S. manufacturers sent experimental lots of insecticides to Argentina by air in advance, for the use of Dr. Parker. These insecticides had already been tested by him in the U. S. and a few of them with raucous names like benzene hexachloride, a chlorinated camphene, and a chlorinated hydrocarbon, showed considerable promise. Now we'll find out how the Argentine grasshoppers react to them.

The technical worker

A NEW and unusual book has been published, entitled "Personality and English in Technical Personnel." It is by Philip B. McDonald, College of Engineering, New York University, and is much more than a mere treatise on proper English usage by scientists and engineers. It discusses the entire group of problems clustering around technical personnel and their work environment. It will be of great interest to personnel officers and administrators, as well as to scientific workers generally.

Insofar as the editor is aware, this is the first volume to give an all-out discussion of the technical specialist's personality, his tendency to become overspecialized and the cultural interests he should cultivate to prevent this, and his ability to express himself clearly in English, as related to his entire job situation. This includes his attitudes toward and relations with supervisors and colleagues, as well as his professional advancement. Through report and letter writing to reading about the Greeks and proper behavior in a conference, it is all there.

All the 33 chapters of this 411-page book are extremely well organized, and they appear in strict logical sequence. Good technical writing is regarded as only one, though a very important, segment of the technician's responsibilities. Professor McDonald exemplies his own admonitions as to good writing. The book is recommended unreservedly. Get it from the Library, your bookseller, or the publisher—D. Van Nostrand Co., 250 4th Ave., New York City.

Sit and think

I WONDER what a hen thinks about while she's brooding? Three weeks of just sitting, hidden from the passing show, oblivious to all surroundings, must take patience, fortitude, and tremendous faith in a just reward for the diligent.

A hen is such a sociable creature, gabbling, scratching, and forever screeching over minor adventures, that it seems contrary to nature when she hides away in steadfast silence to incubate her eggs. I'd as soon suspect Susie of being a blacksmith, as to think that a perky, bright-eyed hen, chattering madly to the girls as she dashes hither and yon on matters important only to her social circle, could ever sit still. But she does it.

Sometimes it's a good thing for humans to sit still and think a little while. I don't recommend indulging the practice to the extent some individuals enjoy, nor even to a 3-week session, but in these days of crazy hurry and juke-box clatter, it is an odd experience just to sit down alone in some quiet spot and let the brain wander aimlessly in space for a spell.

(From R. E. Hodgson's Weekly Farm Message via Hoard's Dairyman of November 25, p. 892.)

Visitors to U. K.

A GROUP of research scientists, agricultural teachers, and administrative officials of the Department, several land-grant colleges, State experiment stations, and Extension Service has returned to this country after studying, at the invitation of the British Government, practically all phases of agriculture in the United Kingdom. During their stay in Britain, the visitors from the U. S. studied the work of the British Ministry of Agriculture, the National Agricultural Advisory Service—which is similar to the Extension Service in the U. S.—the School of Agriculture at Cambridge University, and numerous livestock and plant research centers. Attention also was paid to marketing and rationing arrangements, and procedures.

The invitation to the group to visit

the United Kingdom was a gesture of appreciation for the cooperation extended British agricultural visitors in the United States.

The American agricultural party was composed of Dr. G. H. Aull, head of the department of agricultural economics and rural sociology, Clemson College; Dr. R. M. Bethke, assistant director of experiment station, and associate, animal industry department, Ohio Agricultural Experiment Station; Dr. R. Bradfield, head of department of agronomy, Cornell University; D. J. Harman, Colorado State director, Production and Marketing Administration; Dr. Iver J. Johnson, department of agronomy, Iowa State College; Dr. R. W. Phillips, senior animal husbandman in charge of genetics investigations, Bureau of Animal Industry; W. A. Schoenfeld, dean of the school of agriculture, Oregon State College; and Silver Whitsett, county agent, Guadalupe County, Tex.—QUINCY EWING. FAR.

Bollworm man

DOWN IN Miami you find J. I. Cowger in charge of the pink bollworm control of the Bureau of Entomology and Plant Quarantine. One of his main objectives is the eradication of the cotton which grows wild along the southern coastlines and on down to the Florida keys. For this cotton forms a beachhead for the pink bollworm. And if the pest is not stopped here, its spread to commercial cotton-growing areas of the Southeast seems inevitable.

Then there are the Yankees, some of whom have never seen cotton before. They like to grow a cotton plant in their yards as an ornamental, where it provides a curiosity, blooms and fruits, and also obligingly houses the pink bollworm. Quite unintentionally such dooryard cotton makes itself a menace. As for the wild cotton—no man knows whence it came, but it surely grows to man size, the stalks sometime attaining nine inches in diameter. Furthermore, just to make things harder, cotton is a perennial down in this neck of the woods.

Cowger and his associates have their work cut out for them. Since war was declared on the pink bollworm and its host in 1932, inspectors have destroyed nearly 17 million wild cotton plants along Florida's southern coasts, where some 16 000 acres of it grew in profusion. But those cultivated dooryard ornamentals are at present an even greater menace, for they can yield more bollworms per plant than does wild cotton.

Cotton really does well by itself in Florida, and in a few years will develop into a shrub 20 to 30 feet high. But long before that a happy little moth may flt in and set up housekeeping. It lays its eggs on the square (immature bud) bloom, or boll. Here the egg hatches into a hungry worm which bores into the seed. Finally it emerges, ruining the fiber on its way out—fat and devilish after its rich diet of cottonseed. Soon another horde of moths appears to lay eggs and destroy cotton.

The thought of how far that could spread might keep Cowger awake at nights, but he seems cheerful and believes his battle will be won. Meanwhile, you cotton-growing Yankees (and some southerners are just as bad) behave yourselves in your winter villas in Miami. Don't grow ornamental cotton plants!

Cows can't sweat

IT'S A FACT that cows commonly used in the U. S. for milk and beef production don't sweat, though mules sweat and men perspire. So you see the problem of animal housing differs from that of housing people. You can't expect a dairy cow to be comfortable under conditions which man would find most desirable. Moreover you must remember that all work—whether it is producing kindling, milk, eggs, fat, body tissue, or meat—involves additional energy expenditure and the development of heat.

When the outside temperature is considerably below skin temperature, an animal generally has little trouble getting rid of body heat. But let the outside temperature tend to equal that inside an animal's body and it has far greater struggle getting rid of its extra heat. If the animal cannot get rid of its heat, productive processes may be reduced or even discontinued. If the animal persists in hard work during hot weather, it may die from heat stroke.

The agricultural engineer's problem here is to keep the animal comfortable in hot or cold weather. What does a dairy cow regard as comfortable? Unfortunately it cannot tell us conversationally. Scientists have to sleuth around and find out.

The higher the cow's productive level, the more heat it produces, and the lower its temperature comfort zone. The ease of dissipating that heat also depends on the size of the animal. The larger it is, the better it can stand cold, the more poorly it can tolerate heat. Thus chicks, not hens, need brooders. So the engineer has to consider both bodily size and productive capacity. Then he must think of the animal's color, for while bodies of all colors radiate heat to the same extent, the reflection of infrared and of visible light rays depends upon the animal's color.

Then comes that sweating business. Animals like dogs and cows, which do not sweat, make up for it by panting—blowing air rapidly over the wet surfaces of their tongues, mouths, and lungs. How measure the influence of environmental temperature on loss of heat from the skin and the respiratory system of evaporation? Sweating differences lead to profound differences in heart action and circulation. Cows shift their blood from the hot skin to their cooler insides, the exact reverse of sweating men and mules. Hence the internal blood volume increases, the pulse rate declines.

Then there is humidity. Its relation to temperature and other factors must be considered in finding the animal's comfort zone. Again it must be remembered that nonsweating animals cannot be cooled by fanning in hot weather as sweating animals can, because there is no perspiration to evaporate on the skin surface and cool them.

This is enough to give you an idea of the factors that have to be considered in devising satisfactory and comfortable animal housing on sound scientific principles. It also explains why agricultural engineers of the Bureau of Plant Industry, Soils, and Agricultural Engineering are cooperating with the Missouri Agricultural Experiment Station in equipping an Animal Psychroenergetic Laboratory for the study of animal-housing requirements, particularly for dairy cows. Similar studies with poultry will be carried on at the Agricultural Research Center, Beltsville, by agricultural engineers and other scientists cooperating. At the California Agricultural Experiment Station the Bureau is cooperating on a study of housing for hogs.

Brief but important

FHA in Wisconsin: T. P. Shreve, of Farmers Home Administration in Milwaukee, sends a tear sheet from the October 19 issue of the Wisconsin Agriculturist and Farmer telling about veteran activities of the agency in that State. The article makes special reference to Pierce County—H. L. Shanks, supervisor—which made 100 FHA loans to veterans up to November 1, a record for the Middle West, though three counties in Texas (as might be expected) exceeded this number. All but two of these, which were farm-purchase loans, were made to veterans for farm operating needs. Pierce County made a special effort to aid veterans interested in agriculture.

Lower speculative cotton-trading limits: The Secretary has recommended a sharp reduction in the permissible amount of speculative transactions by large traders in cotton

futures. Details of the recommendations, and announcement of the public hearing before the Commodity Exchange Commission in Washington, may be found in press release 2448; ask Press Service (phone 6114) for this or related and later releases as required.

DDT: Those interested will find an informative discussion of The Role of DDT in Controlling Insect-Borne Diseases of Man, including the effect of DDT on human beings, by Col. William S. Stone, of the U. S. Army, in Journal of the American Medical Association for November 2.

The Role and Efficiency of Animals in Utilizing Feed to Produce Human Food is the title of an extremely revealing article by L. A. Maynard, formerly director of the USDA Soil, Plant, and Nutrition Laboratory, and now back with Cornell. Hogs, dairy cows, laying hens, broilers, beef cattle, and sheep are reconsidered and reevaluated in a novel way on a basis of their efficiency as producers of human food. See the Editorial Review in the October 10 Journal of Nutrition.

Facts about sugar: If you want the real facts about sugar and the prospects for getting more, read the address delivered by Director James H. Marshall, Sugar Branch, Production and Marketing Administration, in Miami, November 21. Ask Press Service for 2527 (phone 6114).

Safety winner: Soil Conservation Service's region 2 won first place in group 1 of the private intercity trucking division of the National Safety Council's Fleet Safety Contest for the year ended June 30, 1946. The truck fleet of region 2—which comprises Virginia, North and South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, Kentucky, and Puerto Rico—covered 8,214,000 miles with only 12 accidents. Region 2 also won first places in the truck division in 1945 and in the passenger division in 1943.

Gunnar Sjöström, professor of dairy chemistry and bacteriology at the Dairy Institute, Alnarp, Sweden, has just returned to his native country after spending 4 months in the United States. The major part of his stay was spent in the research laboratories of the Bureau of Dairy Industry, where he was actively engaged in research on dairy products. He also visited a large number of dairy plants throughout Iowa, Minnesota, and Wisconsin, and he was later joined by Mrs. Sjöstrom on a trip throughout the far West, where he visited other dairy plants.

World animal-disease curbs: The Veterinary Committee of FAO is seeking better control of animal diseases which constantly menace the world's food supply. It comprises members from France, India, Iran, South Africa, United Kingdom, U. S., and UNRRA and met in London this August. Sir Daniel Cabot, chief veterinary officer, British Ministry of Agriculture and Fisheries is chairman; the U. S. representative was Dr. Harry W. Schoening, chief pathologist, Bureau of Animal Industry, and a distinguished USDA scientist for many years. For details see 2472, get it from Press Service (phone 6114).

Careful with those raisins now: The raisin industry was recently reminded by the USDA that War Food Order 16 is one of the few still in effect. The order has been kept on the books to channel this year's small production of raisins into nonbeverage uses, and provides that, unless specifically authorized by the Production and Marketing Administrator, no one shall purchase, accept delivery of, or use raisins or Zante currants for conversion into alcohol, brandy, wine sirup, paste, or nonfood products or byproducts. Raisin production will not exceed 200,000 tons this year, yet 1944 production was 309,500 tons, and the 1935–44 average was 251,150.

Rural hospitals: The Seventy-ninth Congress passed the so-called Hospital Survey and Construction Act, and a committee appointed by the U. S. Surgeon General met in Washington recently to confer about rural needs. (In that connection see the item on rural health in Medical Record for November, p. 658; it issues from 215 Fourth Avenue, New York City.) How will rural communities be lined up to take advantage of this new 75-million-dollar program? The committee includes representatives of Extension Service, Public Health Service, and leading farm organizations. Watch out for later developments.

Lawrence J. Washington, farm credit specialist of Farm Credit Administration, transferred recently to Farmers Home Administration, where he will assist in furnishing credit services to colored farmers.

Douglas Fir: Under this title an Oregon correspondent to the London Economist, for September 21, contributes a stimulating discussion of timber in the great Northwest, and of Forest Service's battle to put Douglas fir and other trees there on a sustained-yield basis. The business of nursing along young stands, it is said, has reached a point where tree farms and sustained-yield operations are attracting the interest of conservative investment capital, but much remains to be done, and FS hangs on doggedly to see that it is done eventually.

The Poultry Industry Advisory Committee, to aid the Poultry Branch of Production and Marketing Administration in giving this industry the best possible service, was established recently. Announcement was made November 12. W. D. Termohlen, director of PMA's Poultry Branch, is chairman. The names and connections of the other members are given in releases of that date; ask Press Service (phone 6114) for 2464 and 2466.

Synthetic Penicillin: The story of this brilliant piece of penicillin research, by Vincent du Vigneaud and his associates, at Cornell University Medical College, was told under this title in the lead article of Science for November 8. The same issue of the journal contained an article on Synthetic Media for Penicillin Production, by R. W. Stone and M. A. Ferrall, of Pennsylvania State College's department of bacteriology. Both are pretty technical.

Poultry Disease Investigations, Miscellaneous Publication No. 609, is another of the bulletins on the activities of the Bankhead-Jones laboratories; this one covers work at the U. S. Regional Poultry Laboratory, East Lansing, Mich.

Year-round source of rutin: The Eastern Regional Research Laboratory of the Bureau of Agricultural and Industrial Chemistry has developed a process for year-round production of the drug rutin from buckwheat. Pilot-plant research has resulted in a practical method of rapidly drying the fresh green buckwheat and getting from it a leaf meal containing 3 percent or more rutin. This meal is storable, and the rutin can be extracted from it with hot water by a process worked out by Roderick K. Eskew and coworkers at the lab. Get press release 2252 (phone 6114), or for more details write the lab at Philadelphia 18 for Mimeograph No. AIC–114, Production of Rutin from Buckwheat Leaf Meal.

Dixie crimson clover: A new clover by this name—with very hard seed which does not germinate as quickly as that of common crimson clover—has been developed at the Beaumont Agricultural Experiment Substation in Texas. R. R. Lancaster, of Texas extension service, says immediate germination is the principal fault of common crimson clover, resulting in many losses of stands. It is expected the new clover will replace the common variety in the South. Though further tests are needed to learn more about Dixie crimson, it has proved successful at the substation the past 3 years. Seed and plants of Dixie cannot be distinguished from the common variety, so crop-improvement associations in several Southern States are handling production of registered and certified seed.

Amalgamation: The recent amalgamation of Special Reports and Press Service under the new Associate Director of Information, R. L. Webster, is significant as bringing together two sections of the Office of Information, both of which have direct contacts with publications and both of which handle a lot of information first-hand. It should be of great interest to Department people in both Washington and the field. Mr. Webster is a career employee who made good. Entering the Department as a subordinate in Press Service, he transferred to AAA, where he advanced rapidly, then became a special assistant to Secretary Wickard, and next, in quick succession, Assistant, then Associate Director of Information under Keith Himebaugh.

Constituent Agencies of the U. S. Department of Agriculture: USDA Document No. 2, which bears this title, now has the revised story of the Farmers Home Administration in it. Between general revisions we often invite agencies to change their stories on reruns of the document, provided the importance of the changes warrants this. Ask Miss Glick for it—Ext. 5451, *Room 406–A*, or *write* the Editor.

Dr. Abner K. Kuttler, Bureau of Animal Industry's inspector in charge of Illinois field activities, has become head of the Bureau's Tuberculosis Eradication Division, succeeding Dr. A. E. Wight, retired. A native of Kansas and a graduate of San Francisco Veterinary College, Dr. Kuttler entered BAI in 1917, and has served almost continuously since. He has had widely varied experience with disease-control projects.

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